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ABSTRACT

The Progressive Era, roughly the period between the Spanish American War and the U.S. entry into World War I, was a period of transformation, a time when the United States ceased being predominantly an agricultural economy with a minor industrial base and became predominantly a modern industrialized nation. These essays and lesson plans, the result of cooperation between museums, schools, and academic historians, are based on a symposium held at the Hershey Museum June 22-26, 1998. The essays and accompanying lessons address the legacy of Progressive Era industry, the meat packing industry, industrialists, Hershey Chocolate, mass production, working people and the labor situation, the role of the public sector, environmental awareness and regulation, and the City Beautiful Movement and planned communities. (BT)



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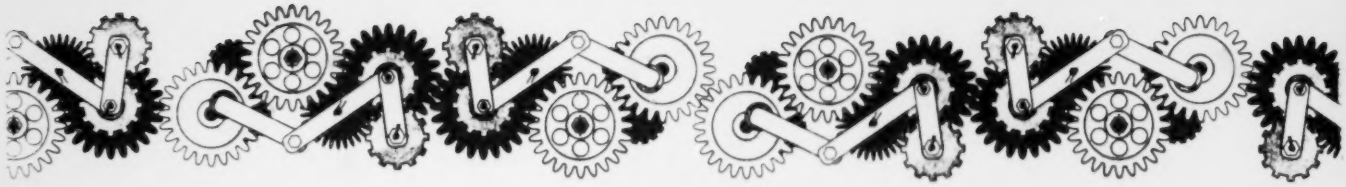

# Progressive Era Industry and Its Legacy

## Essays and Lesson Plans for Teaching Industrial History of the Progressive Era

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# Progressive Era Industry and Its Legacy

## Essays and Lesson Plans for Teaching Industrial History of the Progressive Era

William J. Murray, Editor

Hershey Museum
Hershey, Pennsylvania

Social Science Education Consortium
Boulder, Colorado

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This work is dedicated to the memory of Dr. John E. McAllister.

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# Introduction

Looking to the past to put the present and future into perspective is always an instructive exercise. As a new century begins, it seems particularly pertinent to look back to the 20th century's beginnings to examine the legacy that has been left to us from that time.

The Progressive Era, roughly the period between the Spanish American War and America's entry into World War I, was a period of transformation, a time when the United States ceased being predominately an agricultural economy with a minor industrial base and became predominately a modern industrialized nation. During the Progressive Era, all strata of society as well as government institutions were adjusting to the costs and benefits of an industrial economy.

This work is the result of cooperation between museums, schools, and academic historians. It is based on a symposium organized by Mary Houts, Senior Curator of Education for the Hershey Museum, and myself, a high school educator, that was held at the Hershey Museum June 22-26, 1998. The historians' lectures delivered during the symposium are presented here in essay form. It was my desire as editor to maintain the integrity of the authors' ideas while taking the concepts from spoken to written form. Some editorial license was taken to bring balance and structure to the project. A major thanks must go to Mary Houts, who served as "editor-for-the-editor," and to the original presenters, whose organization and clarity made my job enjoyable.

The first essay by Philip Scranton, Director of the Center for the History of Business, Technology, and Society, Hagley Museum and Professor of the History of Technology at Rutgers University, is a general overview of industrial development during the Progressive Era. Using Pennsylvania as an example, Dr. Scranton provides a framework for understanding the period and explains how a diverse industrial base made Pennsylvania a dominant force in U.S. industry.

In his essay concerning self-made industrialists and the changing role of industrialization, Roger Horowitz, Associate Director of the Center for the History of Business, Technology, and Society, Hagley Museum, explains how two individuals, Gustavus Swift and Jay Hormel, applied industrialization to the meatpacking industry and changed American consumer habits.

The rise of mass production and its impact on industrialization are examined in the essay by William Sisson, Chief of the Curatorial Division of the State Museum of Pennsylvania. Using a number of Pennsylvania examples, Dr. Sisson explains how mass production works, as well as its impact on both labor and management practices.

Walter Licht of the University of Pennsylvania expands on the impact that Progressive Era industrialization had on workers with his essay highlighting working class life and the rise of labor unions.

The increased role of government during the Progressive Era is the topic of the essay by Pennsylvania Historical and Museum Commission historian Kenneth Wolensky. Dr. Wolensky explains that the creation of the Pennsylvania Department of Labor and Industry was a direct result of Progressive Era legislation and reform.

Francis Boscoe, Research Scientist with the New York State Department of Health, outlines in his essay the environmental degradation that occurred as a result of Progressive Era industrialization and the public response to increased pollution and the loss of clean drinking water.

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The "architectural" legacy of the period is explained in the essay by Dan Deibler, Division Chief of the Division of Preservation Services, Bureau of Historic Preservation of the Pennsylvania Historic and Museum Commission. Mr. Deibler examines the rise of the "city beautiful" movement and the development of designed industrial communities in Pennsylvania.

Included with the publication are eight lesson plans researched and written by Daniel Duerring from Wyalusing Area School District, Valarie Mayle from the Camp Hill School District, and myself. These lessons use the town of Hershey, Pennsylvania, as a case study of how the Progressive Era affected one American town. These document-based lessons can be used with a wide variety of secondary and college classes allowing students to examine primary sources. All Hershey materials are located in the Hershey Community Archives, Hershey, Pennsylvania. We were greatly helped in our research by Pamela Cassidy Whitenack, Archivist of the Hershey Community Archives.

Many individuals have helped to make both the symposium and this publication a reality. In particular, thanks are due to the following, who helped with advice, support, and encouragement: the late John E. McAllister, Deputy Secretary for Administration for the Department of Labor and Industry; Robert Weible, Chief, Division of History, Bureau of Archives and History, Pennsylvania Historical and Museum Commission; Linda Shopes, Associate Historian, Bureau of Archives and History, PHMC; and David L. Parke, Jr., Executive Director of the Hershey Museum.

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September 2000





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**Essay**

# Progressive Era Industry and Its Legacy

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When asked to describe Pennsylvania's industry during the Progressive Era (1890-1920), many people would first mention steel mills and mining, but the state's economy was actually very complicated. Much more was going on in Pennsylvania than in virtually any other state. The 1900 census listed 309 divisions of manufacturing; 295 of those 309 were present in Pennsylvania. As the most comprehensive industrial economy in the United States at the outset of the 20th century, Pennsylvania makes an excellent case study for learning about Progressive Era industry and its legacy. In this essay, we begin by looking at the raw materials that formed the basis for manufacturing in Pennsylvania. We then look at types of manufacturing in the Progressive Era—bulk production, specialty production, and local market trades. Factors that contributed to industrial growth are discussed, as are changes in business during the period and the overall economy in the Progressive Era.

## Raw Materials

All industry is founded on raw materials of one sort or another. Pennsylvania had the great fortune in the 19th century to be extraordinarily well endowed with three crucial raw materials of the industrial revolution: coal, oil, and timber.

Coal provided Pennsylvania with energy for steam engines. Steam engines delivered power for factories to turn equipment; hence, coal production was fundamental to industry. Mining was the best known and most extensive of Pennsylvania's extractive industries. The two great mining regions of the state, the northeast and southwest, were dramatically different but had a crucial commonality: the communities that grew there drew heavily on immigrant labor. Mining was one of the most difficult and dangerous of occupations with high risks for workers.

In the 19th century, oil had very little to do with propulsion. Oil was refined for lubricants for machinery and, most importantly, for kerosene for illumination. In fact, the real oil boom began with the ability of the early refiners to process raw or crude oil into kerosene as a substitute for whale oil illumination. In Pennsylvania, oil was not refined, it was pumped. The principal value added in oil came through Standard Oil, John Rockefeller, and the creation of a series of pipelines that ran from the Pennsylvania fields to northern New Jersey, most crucially a town called Bayonne, where a

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vast array of refineries was built. Toward the late 19th century, refineries also arose in the Philadelphia area.

Timber was a national resource. The timber industry in Pennsylvania was not as important as in Michigan, where the hardwood lumber industry produced an extraordinary furniture industry. Still, timber was fundamental for construction. Timber sites were ephemeral, with workers following the resource around the countryside, cutting down those great trees and turning them into 2 x 4s or the equivalent. Timber communities tended to be quite small, perhaps 200 to 300 people. They were heavily male and entirely transient. The refining of timber into more directly usable products often happened at town sawmills. Since timber was very heavy, it was moved primarily on water to a downstream site for milling. Later, railways were important.

## Types of Production

Production in Pennsylvania was divided into two broad classes of manufacturing—bulk and specialty production. The three major Pennsylvania examples of bulk production were steel, canning, and sugar. Bulk manufacturing produced very large quantities of standard goods—ten pound bags of sugar, slabs of steel, ingots of iron, and great long runs of ketchup bottles. These were staple goods made eventually in assembly line processes.

Since the goods were all pretty much the same, competition among the various producers focused on price. If the quality was similar, people would buy the cheapest ketchup or the cheapest steel. Manufacturers therefore felt pressure to push for cost savings in the operation of their enterprises. In the 19th century, enterprises realized that by investing in technology they could make goods in greater quantity and thus sell them more cheaply. Being more efficient produces a cheaper price, and growing bigger intimidates others from trying to compete. This had enormous potential for creating anti-trust issues, questions that eventually the courts would decide.

This period saw the development of national markets for standard goods. Through competition, oligopolies (very large corporations that vanquished or bought up other companies) were established, very much as Rockefeller did with his competitors in oil refining and transportation. The national market was growing at an incredibly rapid rate. Manufacturers could expect that next year they would make more products than this year and twice as much in five years. While there was a solid rationale for investing in expanded capacity, the fear was that production would outpace the market. Bulk production and its technology cost a lot of money and needed to be run all the time in order to recover the investment through profits.

Specialty production was different. Specialty producers made goods to order in tremendous variety and sought to compete in terms of the product's qualities and features. In consequence, specialty producers were able to charge the buyer a premium price. Baldwin Locomotive of Philadelphia sold precision goods, railway locomotives, the most complicated piece of equipment produced in the 19th century. Each locomotive contained 50,000 to 100,000 parts, all of which had to work in a reasonably perfect synchrony. As the United States had dramatically different terrains, the kind of locomotive that would go across the Great Plains would not climb the steep grades of the Rockies. Each railway company needed a different type of locomotive based on the terrain over which its cars had to be hauled, the weights of the products that were being carried, and the number of cars that would be pulled. How much power did those locomotives need? The master mechanics for the railroads drew up their specifications and went to Baldwin Locomotive and a handful of other locomotive works to bargain. Baldwin, in 1900, built 900 railway locomotives from 300 different designs; the largest lot was six alike. That was specialty production.

Instead of making the same commodity day after day, specialty producers created a specific kind of product for a designated


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user who was willing to pay a high price because of precise industrial needs. Specialty production often took place in a network fashion. In Philadelphia, workers operated spinning machines that fashioned the many different kinds of yarn used in the Philadelphia textile industry. Many of these workers were immigrants from England and Ireland who possessed a kind of intellectual raw material. It was relatively straightforward for those folks to go out and start their own businesses. If they knew how to spin lots of different kinds of yarn, there were people doing weaving who could be customers. The spinners could start small, renting space in a factory with power provided. They could buy used machinery, sometimes at auction from another spinner who had gone broke.

Specialty production, then, was conceivable as an interlocking set of firms who contracted with each other for sections of the overall production process, firms started with a very small amount of capital. It was open to talent in a way that, by 1890, steel was not.

The third part of 19th-century Pennsylvania's manufacturing base was local market trades that focused on making such perishable goods as newspapers, sausage, milk products, bread, and beer. Beer, in an era before preservatives, did not ship well. A lot of sausage making was done in local communities for the local populace, especially in the ethnic districts of Pennsylvania, be they rural or urban. A good deal of processed milk and dairy products also flowed from local market manufacturing. Some cheese, being fairly durable, was shipped, but other cheese got moldy very fast.

Virtually every town in Pennsylvania with more than 5,000 people had a printer who did all kinds of local announcements and sheets of one sort or another. In many cases, and particularly in county seats, the printer published the newspaper, be it a weekly or a daily. Printers were among the most skilled laborers in the state, the founding agents of the information age.

## The Role of Labor

How did labor fit into this picture? Mining, oil, and timber workers were transient and substantially immigrant. However, we underappreciate the skill that was necessary to pull off these three extractive efforts. Timbering was much more complicated than it seems. Getting a tree to fall in exactly the right place without crushing anyone was a delicate kind of business. Mining also required extraordinary skill in order to not only stay alive but to master either the ecology on the earth's surface or the geology underneath.

Since miners could be easily replaced, corporations had few incentives to be concerned about the safety of their workers. Thus, the role of labor unions, led by the United Mine Workers, was fundamental. The 1902 anthracite strike provided a base line for humane, or at least decent, behavior on the part of corporations and reasonable and fair mechanisms for calculating wages. There were scattered union efforts in both oil production and timber extraction, but neither had the durability or the significance of the United Mine Workers.

Bulk production was not as demanding in terms of labor requirements, in part because, over the late 19th and early 20th century, technological processes and machines made the workers' skills obsolete. One of the things that a visitor in the 1890s noticed about Carnegie Steel Works in Pittsburgh was that there did not appear to be many people working on metals, but there were hundreds of people moving things. While not necessarily terribly skilled, moving physical stock from one place to another required enormous quantities of common labor, which diminished when corporations reorganized materials handling.

The Heinz canning operations in Pittsburgh employed young, white-capped women from Pittsburgh, who sat at long tables, hour after hour, putting 16 pickles into each jar, pickle after pickle after pickle. The white caps prevented their hair from getting in the jars and kept the process

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sanitary. These were the kind of jobs women were offered in this economy. They were presumed to have virtually no skills, other than not dropping pickles on the floor. Because the skill level was very low, the pay was modest. These enterprises put their money into the equipment, not into the work force.

Specialty production was different. While laborers still moved things around in locomotive factories, a study of Baldwin Locomotive conducted circa 1910 showed that between 65 and 70 percent of the 10,000 workers at Baldwin were skilled labor—machinists, high-end forge men, and die cutters. The proportion of skilled labor at Baldwin was arguably higher than at almost any other metal working plant in the United States because it was a precision production system. In that environment, there was a very different set of relationships between labor and management. The machinery was liable to be pretty basic. No huge complicated conveyor systems were used because those were designed for making the same thing over and over again. Instead, Baldwin, and many other comparable plants, used relatively simple machines that could be put to many different uses, what technology experts call general-purpose machines. The guts of the plant were in the heads and skills of the workers. Management therefore needed to treat workers reasonably well.

When the economy took a periodic downturn, specialty producers tried to come up with some way to keep that core of skilled, talented, experienced folks on the job. A coal mine might just shut down. Steel factories often would do that as well (until the blast furnace era when they had to keep the blast running). Specialty firms would lay off common labor but create other tasks for the skilled workers. In Philadelphia textiles, for example, they would run samples of new patterns or new designs.

Labor in the local market trades was highly varied. Printers were incredibly skilled workers, but such trades as baking and brewing were more mixed. Bakers did not vary their local product in the 1900s. Bakers made only bread and rolls—lots of bread and rolls, the same stuff, pretty much every day. Most people made cakes and pies at home and did not buy them from the baker. Bakery workers were therefore more vulnerable to layoffs than were printers in recession times.

## Other Factors Critical to Industrial Growth

Transportation during the period was almost as important as raw materials. Local transportation had a major impact on where workers could live and the labor pool that a factory could draw from. Streetcars were fundamental, for they expanded the labor pool, particularly after they were electrified. The maximum time that a person was willing to travel to work without grumbling was one hour each way. One hour of walking was a certain number of blocks, but an hour on a streetcar could be ten miles. Transportation advances also meant that the workers did not have to live in the shadow of the mills and the coal smoke. Working class suburbs developed around Philadelphia and Pittsburgh.

Most business transportation was completed by horse-drawn wagons. Individuals were driving around in their Model-Ts, but the motorized truck was not introduced for business purposes until after World War I. Businessmen still had stables next to their factories during the Progressive Era. In a network of specialized trades, different factories were completing different steps. Material had to be moved from one factory to the other. It helped if they were all located in the same neighborhood, and often they were. But, even within neighborhoods, transportation could be difficult; transporting goods on the narrow city streets took a great deal of time.

Railways were also important to America's industrial structure. It did not do much good to make locomotives or textiles unless you could quickly get them someplace where people wanted them. Railways were not only huge consumers of industrial goods, they also generated transportation


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synergy. They linked various parts of this enormously large country; without the railroads, the markets of the Midwest and West would never have had access to the products of the East. Furthermore, the railways provided the opportunity for reciprocal trade; not just the shipping out of material, but also the bringing back of items from other places. Cities in the Midwest took advantage quickly. By the 1880s, Grand Rapids, Michigan, was using walnut and all kinds of local hardwoods to produce some of the best furniture in the United States.

The last elements related to moving goods that need to be discussed are intermediary trades and services. Heinz produced ketchup but did not want to deliver it to individual stores; they needed an intermediary, a wholesaler, who would contact the stores and make the deliveries. This was also important in fabrics and other consumer trades. What wholesalers did was to economize on the cost of distribution and connect an industrial production system to highly scattered public consumers. Direct face-to-face contact was important in specialty trades because buyers were telling the company exactly what they wanted and it was the manufacturer's job to generate the product to specifications. This was not as important when the product was mass-produced.

Banking and insurance operations were also crucial to industrial growth during the period. They pooled capital gathered from all sorts of regional sources that they then recirculated into the economy for various purposes. In the 1880s and 1890s, traditional banks in Philadelphia and Pittsburgh thought that manufacturers were too risky an investment and would not loan them money. Thus, manufacturers created their own banks. Such banks as the Textile Manufacturers National Bank and the Industrial Valley Bank opened savings accounts for factory workers and encouraged them to put money in the banks so businesses could use the funds. Banks and insurance companies also leveled risk in the economy. Unless a company was enormous, an event like a factory being destroyed by fire could close its doors forever. Insurance, the pooling of money by a number of companies, allowed the factory to be rebuilt.

Communication was very important in business. Neither the telephone nor the telegraph system was put into place to help individuals. These were business services established, initially, to permit rapid communication of timely business information. Such communication was not cheap. In the 1870s the typical business telegram of 15 to 20 words cost about three dollars, a day's wages for a machinist. As a result, Baldwin Locomotive Works and many other firms put out code books as a part of their catalogs. Instead of sending them a telegram ordering a 2200 horsepower, 6 - 4 - 0 mobile engine number, you sent a code located beside that model in the catalog; a one-word telegram. The telephone was also supposed to be a business device. In the early days, Bell Telephone discouraged people from making social calls on the telephone. Of course, users paid no attention.

The electric companies had a slow start during the period. Edison invented the light bulb, but there was a long time lapse between the invention and the diffusion of technologies; between the patents being filed and lights coming on in a regular way. Again, electric power was about business, not about households or communities. Most households in the 1920s had one electric line with about a 10-amp power. This translated to one light bulb per room.

Electric power was also important because it replaced the steam engine. Two things were wrong with steam power from an engineering standpoint. First, there was power loss everywhere; the efficiency of the machine was limited. All those turning belts and shafts used energy for their own processes with only 20 to 30 percent efficiency in terms of the overall power—better than having men stand there with cranks trying to turn the machines, but still inefficient. Electricity changed the game. What was first done in factories was to apply electric power to driving the shafts and the belts, a more efficient process than the steam engine.

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Eventually, General Electric, Westinghouse, and a handful of other companies figured out that a small motor could run each machine. Factories did not need to have all of the shafts, all of the belts. People didn't get all their hair ripped off or get their clothes torn by whirling belts, and there were fewer maintenance problems. Baldwin Locomotive was the very first American factory of any size to completely shift to electric power.

By 1910 motors were developed that had variable speeds so workers could vary the speed of the machine just by moving a lever on the motor. A problem with belt drives involved the big cones that stuck out the sides of the machines. If the worker put on cone number one, the machine went very fast. When the next cone was put on, the machine went a quantum level slower. When the biggest of the three pulleys was added, the machine went a quantum level slower yet. These three speeds were not necessarily sufficient for all the different kinds of jobs. The machine operator had to fit the job into the arbitrary speed. It was a clumsy system. The addition of the variable electric motor produced a brilliant change because it allowed the match of technology to the peculiar situation.

## The Role of the Public Sector

The government was not as important to the development of the American economy in the late 19th century as was private enterprise. Government, though, did provide services. The post office provided a very necessary service to business. The government pledged to move information from one part of this vast country as fast as possible using first the Pony Express and later the railroads. It was a huge achievement. The transforming of three million square miles into a market depended on the reliable movement of information, as well as goods. The federal government took on that responsibility. It also ensured that the information was secure.

The stability of the U.S. government was good for business. Investment and growth depended on the stability of the law. If the law was arbitrarily shifting, then business did not know whether taxes would rise, property would be seized, or the military would come in and shoot the foreman. A legal system that was independent of the political actors was fundamental.

Public education was another important part of the public sector. In the early days of U.S. history, public education was dreadful. Very few people finished school. In those states, principally in the North and Midwest, where public education was widely and substantially supported, levels of literacy were appreciably higher and industrial development was more widespread. In the South, public education was undersupported or not supported at all. One of the great problems the southern states had in the 1920s and 1930s was an underskilled work force. That sort of underinvestment in education in an industrial economy was a crippling mistake. Even those Pittsburgh women with the pickles needed to be able to read and write so they could understand printed instructions. Literacy was a major intellectual raw material for an industrial society.

## Changes in Business During the Progressive Era

What were some major changes that occurred in business during the Progressive Era? One of the biggest events was the creation of U.S. Steel at the end of the 19th century. This was accomplished through a series of negotiations between Andrew Carnegie and J. P. Morgan. Morgan and others believed Carnegie was ruining the steel industry. No matter what price industrialists put on their steel, Carnegie posted a lower price, driving his works 24 hours a day to make profits at the lower price. He invested more in technological development than anyone else and was selling steel so cheaply that his competitors were losing money. Since Morgan and a number of his associates had substantial investments in steel firms, they wanted Carnegie out of the industry. Morgan persuaded him to take $900 million and do something else with his life. U. S. Steel was created as the first bil-

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lion-dollar corporation, the largest corporation in the world.

U. S. Steel was never so strong and efficient as it was in the first year or two after the great amalgamation. At that point, it produced 75 percent of American steel; that percentage declined every decade thereafter. Part of the reason for the decline was the extraordinary self-satisfaction that arose from having pulled off a domination of the market. This self-satisfaction led the new owners to allow technological stagnation. They had gone through a terrible struggle in order to reap profits that they were not able to get when Carnegie was running everything. They wanted to sit back and watch the money flow in. The owners did not risk new money. By the 1950s, U.S. Steel and the American steel industry were behind the world leaders. A major, new—and expensive—technology for producing steel had been introduced. American steel makers did not want to put the money into more technology. Starting in the 1950s the fate of the U.S. steel industry was already sealed by the failure to invest in new technological possibilities.

Large electrical firms were created during the Progressive Era. Westinghouse was one of the revolutionary firms of the late 19th century, dealing in electrical goods, railroad safety, and appliances. George Westinghouse was one of the last great proprietors in America. He ran his company personally. Every time somebody developed a new idea, George created a new company. Turtle Creek Valley in Pittsburgh, where all of this was located, was the Silicon Valley of the 1880s and 1890s. General Electric was a New England Company formed as an amalgamation of New York and Boston firms. General Electric created branch plants all over the country because it needed to be able to make various kinds of components in different parts of the nation. Huge production facilities for electric motors were built in Erie at one end of the state and power turbines were built in Philadelphia at the other end. Each employed 6,000 to 10,000 employees and proved important in anchoring its community.

This was also the period when America got a full-range textile industry, not just cotton goods and wool blankets. In the 1890s and at the turn of the century, fine textile products like lace and silk hosiery started to be made by skilled workers in Philadelphia.

One important industry that developed during the period was instrumentation. Brown Instrument in Philadelphia made measuring devices that allowed invisible processes to be understood by the engineers who were operating them. Was the inside of a cauldron making steel at 2,000 or 3,000 degrees? Who knew? Brown developed an accurate heat-measuring instrument so that engineers would know when the process had reached a certain point. This increased reliability and efficiency and produced less waste and fewer disasters. Making instruments was incredibly demanding. It was in Philadelphia where the most skilled metal working mechanics were called upon by Brown, and other companies, to devise the processes to manufacture the instruments.

This was also a period that saw the manufacturing of leisure goods, with Philadelphia Toboggan Company as a prime example. With the transformation of American life in the 19th century to include things like Coney Island and going to the Jersey shore, the roller coaster became an object of great affection. Building roller coasters in the United States at the turn of the century was something of a mania. Between 1895 and 1910, 3000 roller coasters were constructed in the United States and Philadelphia Toboggan was the biggest firm of all. The coasters were made out of wood with little electrical engines that pulled that little car up at the very beginning. Incredibly fine craftsmen were needed both to design and to execute the construction of roller coasters.

Also created during this period was the concept of brand names. Before the turn of the century, people would go to a market and buy a pickle from a barrel. Heinz brilliantly recognized that if they could link the company's name with a guarantee about purity, quality, and price, they could grab a

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big share of the market. Heinz took pictures of the white-hatted women workers and used them in advertising; "Do you want to buy from an open barrel where people throw cigar ashes or do you want your pickles in a nice clean jar that our lovely little ladies in Pittsburgh packed for you?"

Brand naming became, in some ways, a point of rescue for commodity production. Brand naming provided an avenue for advertisers to convince consumers in the 20th century, particularly starting in the 1920s, that there were these wonderful subtle differences between ordinary commodities and consumers should pay extra to enjoy that advantage.

## The Economic Roller Coaster

The 30-year period of the Progressive Era (1890 to 1920) was a roller coaster for the general economy, a time that was extremely rough on the American people, on businessmen, and on workers. In the latter part of the 1880s, the economy was recovering from a recession, and everything seemed to be doing well. That outlook changed in 1893, when the American economy went into a full-scale depression. Unemployment in places like Philadelphia reached 30 percent. Factory order books were flat. People tried to conserve gold because they feared that the currency was going to go under. In 1897, prices went down to a level where people began to invest, prompting a recovery in 1898; for about five years, the economy was on a solid upswing.

Many of the companies that took a beating in the depression of the 1890s were the firms that overproduced to make a profit. They had huge, technologically sophisticated, very expensive productive facilities financed by debt. By the middle of the 1890s, some of them went bankrupt. In 1898, with the recovery of the economy, the biggest merger craze in U.S. history to that date began. Companies that survived realized that, in order to ensure a profit, they needed to cooperate. The Sherman Anti-Trust Act said that industry could not fix prices, but there was no law that said that companies could not amalgamate their enterprises, bringing industries together into larger operations that would systematically get rid of excess capacity. Following mergers, the oldest plant from each merged company would be shut down; the most efficient plant from each company would be further developed. This strategy ensured that everyone would make money.

1903 saw another recession, from which the country bounced back. In 1907 there was a panic; people were concerned that the major New York banks would go belly-up because they could not meet demands for the return of deposited funds. J. P. Morgan, legendary financier, literally stepped in and saved the financial base of the country because he had access to more money than God did and he was prepared to use it. He realized that, if the financial structure cracked, rebuilding would take a long time and a lot more money. It was the last time in U.S. history that one individual had that kind of capacity, that kind of financial power.

Around 1910, automobile production was beginning to develop. Henry Ford came out of the Midwest, bringing the Model-T. Yet in 1913 the economy crashed again; the next year, World War I started. The United States was importing a great amount of raw materials from overseas—wool from Australia, China, and Russia; dyes from Germany. The economy was depressed for a year. Finally, in 1915 and 1916, very large orders from the combatants started coming in, but these were in selected industries, mainly munitions. Some of the textile folks began to make uniforms for the Europeans.

When America entered the war, the economy further changed. With demand for war materials coming from foreign powers and the U.S. military, manufacturers could not produce enough. When demand exceeded supply and manufacturers began bidding for limited raw materials, prices rose. The government failed in its efforts to manage prices; thus, in 1918 and 1919, the worst inflation since the Civil War took off.



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In 1920 the price structure collapsed, and the United States experienced the worst and sharpest recession in its history. Industrial production went from an index of about 100 to around 45 in 90 days. Department store owners were tearing their hair out over the inventory they had purchased at high prices. People did not want to buy marked-down goods because they thought that prices were going to decline even more. It was a terrible time for the economy. The broader structure of the economy was strong, and tremendous investment had been made during the war. Still, the economy was on a rapid roller coaster ride.

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# Self-Made Industrialists: The Meat Packing Industry as a Case Study

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Meat packing provides a good example of a Progressive Era industry. It started as a local industry that grew to national prominence, with a few companies monopolizing the market. Like other industrialists, meat packers had to take advantage of the market, figuring out what people wanted and then trying to change consumer habits in ways that would be profitable.

Putting events in a larger context necessitates use of a very long time frame. Thus, this chapter begins by discussing the history of meat packing before the Progressive Era. We then turn to the example of a highly successful meat packer—Gustavus Swift. Efforts to reform the meat packing industry are examined. The chapter concludes with a look at another successful meat packer, Jay Hormel, whose story further contextualizes the events of the Progressive Era by taking the industry further into the 20th century.

## The History of Meat Packing in the United States

Because of meat's perishability, meat packing was an entirely local business before 1800. Climate and proximity to the livestock and population centers were necessary for this business to succeed. To prevent deterioration of the animal, most meat packing took place in the winter, usually in very small operations located adjacent to rivers or other bodies of water. Meat packers needed water to process the meat, take away the refuse, and transport the meat to market. Transporting products by any means other than water was extremely expensive.

Meat was widely consumed in America. In fact, Europeans traveling in America at this time were stunned, and sometimes appalled, at just how much meat Americans ate. Even so, the meat business was a local market trade, partly because the best way to keep the meat wholesome was to keep the animals alive. All major cities, and many small ones, thus had meat packing districts.

In the early 1800s, growth of the transportation network allowed processed or preserved meat to be moved moderate distances from where it was processed to where it was consumed. This was overwhelmingly a pork business because pork cures much better than beef, and pigs do not travel as well as cattle. For these reasons, river pork packing centers emerged after 1820.

Cincinnati was the largest of the meat packing centers. Cincinnati is located on the Ohio River, allowing for the distribution of

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the meat products. In late October or early November, farmers would drive their hogs to processing centers. Here the animals were killed, butchered, and put in barrels with a brine and salt solution. The pork would be cured for several months and then sent down the Mississippi. Because it was very hard to ship across the Allegheny Mountains, pork would be put on a steamer in New Orleans and taken north to New York City, Boston, and Philadelphia.

Today's consumer would probably not like the hams produced then. The ham was cured for a very long time so it would last. Because it was so full of salt, the ham had to be soaked in water and parboiled for a long time before it could be eaten. Still, the ham tasted incredibly salty.

Slaughterhouses of the mid-1800s were primitive operations. The New Orleans stockyards, for example, had a beef-killing operation. Workers in these sheds emptied their washings and the blood of slaughtered animals into the street gutters, which were ditches on the sides of dirt or unpaved streets. Little if any of this rapidly decomposing liquid reached the drainage canals in the rear of the city; most of it was absorbed by the soil or evaporated into the atmosphere, giving that portion of the city an unpleasant odor.

Noise and odor made the stock landing stables along the river an even greater nuisance. The floors of such stables, if they had floors, were made of flat boat lumber with numerous holes of one inch or more in diameter. These openings allowed the soil under the stables to be saturated with the urine and excreta of the animals.

Furthermore, in the stock stables, a number of diseased animals died and were thrown into the Mississippi River. It was a daily occurrence to see decomposing caracasses brought by the eddies of the river over the end of the suction pipes of the water works company, which furnished drinking water for New Orleans. The carcasses that did not stop at that favorite spot drifted down the river, often lodging under the wharves.

What started to happen in the 1850s, and was almost completed by the 1870s, was the replacement of canals and rivers with railroads as the major transportation network in the United States. Railroads reoriented the transportation of goods, as they could carry heavy items over large distances for relatively low cost.

Railroads allowed Chicago to become the major pork packing center in America during the Civil War. Chicago had a tremendous geographic advantage. It had rail lines going into the Midwest to get the raw material (the hogs), and it had rail lines to take meat to the east coast. Cattle, however, were not killed in Chicago in the 1860s, but instead shipped to the east coast live on the hoof in railroad cars; there, they were distributed to butchers through local stockyards in major cities all over the east coast. The perishable nature of meat was still an enormous problem. Gustavus Swift was the person who did something very important to address this problem.

## Gustavus Swift

Gustavus Swift was born in Cape Cod, Massachusetts, in 1839. The son of a poor farming family, Swift worked in the fresh meat business in eastern Massachusetts for roughly 20 years (from about 1855 to 1875). He started as an itinerant wagon driver of slaughtered beef. On Friday, he would go to the stockyards near Boston, buy a cow and take it to his shed, where he killed and dressed it; he would then load up his wagon and drive around Cape Cod, selling cuts to housewives in that area. The next Friday he would go back to the stockyards, buy another cow, and do the same thing again. Later, Swift bought a meat market, where he continued to buy and butcher meat. This was very typical of a local market industry.

In the 1870s, Swift's skills as a buyer of cattle brought him to the attention of larger meat dealers in the Boston area. Two of these dealers hired him as a buyer. One of these dealers specialized in shipping live cattle to England. The other had a slaughterhouse in the Boston area. They both


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wanted Swift to use his skills as a buyer to provide them with cattle. In this new job, he started to follow his supply of livestock backwards, reasoning that if he wanted the best price for his employers, he needed the best cattle. At first he went to Albany, New York, which had a stockyard, then to Buffalo, and then finally to Chicago. Swift reasoned that if he could kill the beef in Chicago, he would not have to ship all that bone and fat that could not be eaten, feed the cattle on the way, or lose weight in transportation. He would then be able to sell beef more cheaply than folks on the east coast. But how could the meat be preserved?

Ice refrigeration was just starting to become more prevalent in Chicago. From the 1870s through the early 20th century, refrigeration meant going into the Great Lakes and cutting ice for shipping. By 1878, Swift was able to get a refrigerated car designed. By today's standards, it was primitive technology. Ice was put in the top and the cold air dropped to the bottom, pushing out the warm air through vents.

By 1880 the first dressed beef reached the east coast, in the Boston area, where Swift had contacts. In the course of the 1880s, dressed beef became the way that beef was obtained in the east coast cities. Most east coast stockyards declined because cattle were no longer coming to the east coast on the hoof.

Swift also was able to transform the technology of beef killing. Once he had large numbers, he could automate. The plants that Swift organized in Chicago dwarfed the old beef-killing establishments.

Swift still had to overcome consumer resistance. People did not trust dressed beef coming to them chilled. They wanted to be able to see the cow on a Tuesday and then have the cuts on a Thursday; otherwise, they did not believe the meat was safe. Of course, many meat dealers on the east coast did not like the idea of dressed beef since it was going to put them out of business; their attitude made resistance even worse. Swift took the dramatic step of organizing a distribution apparatus, called branch houses, through which he got the beef into the east coast cities. Swift built and owned the refrigerator cars used to ship the dressed beef and built more than 200 outlets in east coast cities in order to make dressed beef available and palatable to the American market. Swift also enlisted doctors to certify the quality of his beef.

Once Swift started killing cattle in large central areas, he had a new problem: how to dispose of beef by-products. He had to figure out some away to sell all the pieces of the animal. Some organs could be made into various kinds of medicines. They also created from beef fat something called oleomargarine. Sausages and frankfurters were produced because they needed to do something with the scraps.

Suddenly, Swift had to change the nature of the company to efficiently process and sell these by-products. Swift also had an economic incentive to make the best use possible of his enormous fixed investment in a distribution apparatus. So by the early 20th century, Swift was selling grocery products, cold drinks, and eggs through this distribution system, to try to amortize the cost of the investment.

Swift was just one of a number of meat packing firms that became dominant. By the turn of the century, this oligopoly had displaced the old-fashioned local meat packing operations like the ones in New Orleans. In 1903, when Swift died, six companies controlled 90 percent of the cattle slaughter in the United States. With this kind of power, people noticed. People noticed in beef—as they noticed in oil, in steel, and in sugar—that a few large oligopolies were dominating sectors of the U.S. economy.

## Muckrakers and Meat Packers

In the early 20th century, the famed muckrakers of the Progressive Era charged the meat packers with engaging in activities detrimental to the consumer. The meat industry and Swift in particular were targets

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of a scathing critique in the form of a 1906 novel, *The Jungle*, by Upton Sinclair.

Sinclair's accusations had merit. Preservatives were added to fresh chopped beef with the claim that it could be left on the open counter for a week and remain, at room temperature, wholesome and red. Ads for food coloring printed in a catalog in 1900 claimed that even the most skilled inspector could not tell when this food coloring had been added to meat. The meat packers were experimenting with chemicals, and there was no process of federal approval of food additives at that time. One of the more disturbing claims was of men falling into the sausage vats and getting ground up into sausage. That particular allegation was never verified, but there was plenty of evidence that bad meat was added to good meat. And conditions for workers were certainly poor.

The meat packers tried to deny the accusations found in *The Jungle*. The charges were exaggerated, they claimed, and the story did not apply to the national companies; local concerns were the problem. Meat packers initially blocked legislation to regulate their industry.

One of the readers of *The Jungle* was President Theodore Roosevelt. He appointed a commission to investigate conditions in the meat industry. When some of the commission's findings became public, sales of canned meat dropped by half. Fearing that they would not be able to sell their products without inspection, the meat packers became resigned to some form of government regulation. If everybody had to be inspected by the government, they reasoned, then everybody had to bear the same costs. Inspections would be tolerated as long as the inspectors did not actually interfere with management. Facing public pressure, Congress passed the Meat Inspection Act and the Pure Food and Drug Act.

Meat packing remained an example of monopoly power. The Federal Trade Commission undertook a huge investigation of the meat packing firms from 1917 to 1919, resulting in restrictions on the industry's operations. The industry was no longer allowed to distribute non-meat products through its distribution networks. That restriction was actually quite significant because the meat companies were poised to become supermarkets—national distributors of all sorts of grocery products. The consent decree, which they signed with the government, prevented that process from taking place and opened the way for such large supermarket chains as Safeway and A&P.

However, in the early 20s, the large companies' control over the meat industry was solid. These companies, Swift foremost among them, had a stranglehold on this industry until Jay Hormel figured out a way around this seemingly enormous obstacle.

## Jay Hormel

Hormel was a second-generation President of the Hormel Company. The company was located in southern Minnesota, in the middle of a hog farming region and on a river. Jay's father George established the company, a successful local meat packing concern. The elder Hormel employed a few hundred workers processing pork and distributing it as far as Minneapolis, about a hundred miles to the north, or even Chicago. Most of the products were sold in the Iowa-Minnesota area. This restricted regional market was due, in part, to the large meat companies' power over national distribution.

Hormel hired salesmen to drive the territory and sell his product to local butcher shops. He did not create branch houses, and he did not use refrigerated railroad cars. He did not have the capacity to reach out for a national market. What he did have was a claim of high quality: his Minnesota milk-fed hogs were better than Swift's.

Even before Jay Hormel took the presidency, seeds of change had been planted. In the teens and early 20s, Hormel had begun to use name brand advertising; the company claimed that Hormel products were better. Hormel's use of the car to deliver goods was also an important development,


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liberating the company from the railroad network as the basis of distribution. Suddenly a little company in the middle of nowhere, as long as it could get to a highway, could get its goods around the country.

Jay Hormel was Princeton University educated and an Army officer during World War I. He was very much indoctrinated with the new ways of doing business during the Progressive Era, especially the use of name brand advertising as a way to disseminate his products and use of market research to figure out what the consumer wanted.

Once he became the company's chief executive in 1927, Jay changed things dramatically. His initial innovation was developing canned ham. Today, people might take canned ham for granted, but until the Hormel Company did this, ham came packed in loose bags, heavily cured in salt and other kinds of solutions. Hormel wanted to turn ham into a high-end product. If he canned it, Hormel could use the can as a means to preserve the ham rather than cure it with salt. This improved the taste of the ham. He called this new product the Hormel flavor sealed ham. A year later, he had whole chickens in a can, which he marketed along with canned hams through an enormous advertising campaign in the popular journals of the day.

Hormel used the A&P and the beginnings of the national supermarket chains to sell his goods. He did not have to bother with Swift's proprietary distribution network; he made arrangements with these grocery companies to carry his product.

In the thirties Hormel took another step. Canned hams were large—six to twelve pounds. Hormel's sales representatives told him there was a market for consumer-size preserved meat products, preferably lunch meat. This led to an inexpensive and tasty pork product, which Hormel named Spam. First sold in 1937, Spam was the first canned meat product available under six pounds. The consumer could buy a tin, slice the Spam for lunch, and not have a problem with a large product left in the ice box. (Most people did not have refrigerators at that time.)

Hormel used an enormous advertising campaign to promote Spam. In addition to print ads, he launched a weekly radio program, "The Hormel Music Hour." In 1940 Hormel hit the big time when he contracted with George Burns and Gracie Allen, along with Artie Shaw's orchestra, to promote Spam on the NBC radio network, the leading network at the time. George and Gracie performed with Spammy, their pet pig, and Gracie introduced herself by saying, "This is Gracie Allen, Spam's meat heart, speaking."

Hormel also put comics in newspapers with phrases like "Spamwich," "Spambled eggs," and "a Spam good idea." They created a Spam jingle. While these kinds of activities are commonplace today, the industry journal noted that, at the time, the meat trade looked on Hormel's activities with varied degrees of skepticism, optimism, and aloofness. When Spam sales skyrocketed in the late thirties, all of the meat companies realized there was a market and introduced similar high quality, heavily spiced, meats.

Survey data from the late 1930s indicates that Hormel and his emulators had an amazing impact on the American diet. The percentage of urban families eating canned meat goods rose from 18 percent in 1937 to 70 percent in 1940. By any merchandising and entrepreneurial standards, that was an enormous success.

Spam became an extremely popular American product during World War II. "On the docks but not in their dictionaries," was one Hormel advertising slogan. The Soviets were shipped Spam as part of the U.S. support. In Great Britain, enormous amounts of Spam went to the military. By 1945, Spam was an icon of American productivity.

## Conclusion

Gustavus Swift and Jay Hormel sought to conquer geography by using technology—ice, refrigeration, railroads, and later cars, trucks, supermarkets, and brand-name ad-

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vertising. Innovations in transportation and mass production lowered costs for consumers. Meat prices dropped steadily through the 19th century. Moreover, cuts of meat not previously available to working class or ordinary people became available. By the early 20th century, the working class did not have to rely upon barrel pork—low-grade pork backs cured in incredible amounts of salt and stored in barrels for months and months. The poor were still relying upon cheaper meats, but the meats were not as heavily preserved. The poor were more likely to have canned goods, which were healthier. Whether the world is a better place today because of Spam is something we could debate, but there is no doubt that Gustavus Swift and Jay Hormel had a major impact on the American economy and the diet of the American people.

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## Document-Based Lesson 1

# Milton S. Hershey as an Industrialist

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### Historical Background

Big business during the Progressive Era resulted from the vision of company owners who recognized great opportunities and were willing to take risks. The talents of these bold entrepreneurs combined with the availability of abundant natural resources to produce an era of intense industrial growth. Andrew Carnegie and John D. Rockefeller are well known examples of industrialists.

Another industrialist was Milton S. Hershey, who came to dominate the chocolate industry. While Hershey failed at early attempts in business, he held on to his vision of success. Through an investigation into the character of Hershey, students will gain insight into the traits that made him a successful industrialist.

**Objectives:** After completing this lesson, students will be able to:

1. List and prioritize the character traits of Milton Hershey that made him a success and explain and defend their reasoning.

2. Compare the listed traits to those of other industrialists of the era and to modern industrialists.

3. Write an essay on the character of Milton Hershey as a man of the industrial era

**Time Required:** 2-3 class periods

**Materials and Preparation:** You will need copies of Handout 1. Students will also need reference materials for researching the character of other industrialists. You may want to conference with the media specialist regarding available materials before deciding what industrialists to assign to the group. Students should have some familiarity with the Progressive Era and the notion of industrialists before you use the lesson.

### Procedure

1. Ask students if they have ever heard the name Milton Hershey. If they have, ask them to share what they know about Hershey. If they have not, explain that Hershey was an industrialist of the Progressive Era. Ask them to guess with what industry he was involved; they should not have too much difficulty coming up with chocolate.

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2. Explain that students are going to be examining what various people said about Hershey's character in order to develop a list of traits that might contribute to a person's success in industry. Organize the class into groups of three or four and distribute Handout 1. Tell students to read the handout and, in their groups, develop a list of character traits attributed to Milton Hershey. Be sure students understand what a character trait is before they begin their work.

3. Use the following questions to conduct a class discussion of the reading:

- ❑ The different interview selections give us insight into the character of Milton Hershey. What character traits stand out? *Concentration, comprehensive view, forward looking - optimistic, hard work, loyalty, open minded, considerate of workers' needs, thrifty, self-reliant, disciplined.*
- ❑ Review the Gassler quote. How could the philosophy of doing everything for yourself lead to inefficiency? *One trait often given for a successful businessperson is the ability to delegate responsibility rather than trying to do everything oneself. The leader's time is valuable and should be spent on tasks for which he/she is uniquely qualified; anyone can pack a suitcase.*
- ❑ Review the McClain quote. Why is the ability to put something behind you an important trait for a successful industrialist? *Business is filled with day-to-day failures. If the business person is to succeed, he/she must look to the future with hope, not to the past with despair.*
- ❑ Review the Gallagher quote. Why is it important that a business person be willing to review a decision? *First reactions to an idea do not always make for the best decision. People often are reluctant to embrace change. Thinking about an idea for a while may help a person recognize the merits of an idea.*
- ❑ Review the Stover quote. Is it important that a business person fire people that do not do what is expected? *Answers will vary. The teacher should stress the importance of being able to trust an employee.*
- ❑ Review the Spangler quote. Why is thrift an important trait for a business person to have? *Profit is what is left over after all expenses are paid. While it is necessary to spend money to make money, it is also important to eliminate unnecessary expenses to increase profits.*
- ❑ Review the Shenk quote. Was Mr. Hershey within his rights as a businessperson to fire the worker? *Answers will vary.*
- ❑ Review the Stahl quote. What did Lucas mean when he said "that is contrary to your principles." *Hershey had a reputation for restrained living. He lived in a large house, but compared with the homes of other industrialists of the day, it was very modest. Most of his money went back into the company. His workers were well paid by industry standards.*
- ❑ Review the Horne quote. What made Hershey a success? *Hershey was able to look at the whole picture and was not afraid to take a risk.*
- ❑ Review the Laudermilch quote. Why did she feel he was successful? *Hershey never stopped working hard.*
- ❑ Review the Radebaugh quote. What made Hershey a success? *Hershey concentrated on business.*

4. Have students return to their groups to prioritize the character traits they identified according to their importance to Hershey's success. Have each group post their top five


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traits on the chalkboard or posting paper. Conduct a class discussion of the differences and similarities among the groups. Leave the group lists on display until you have completed the lesson.

5. Post a list of industrialists—both Progressive Era and contemporary—about which you feel confident students can find enough information to make comparisons with Milton Hershey. Possibilities from the Progressive Era include Gustavus Swift, Jay Hormel, Andrew Carnegie, John D. Rockefeller, and Henry Ford; contemporary examples might include Bill Gates, Lee Iacocca, Ross Perot, Michael Dell (Dell Computers), and Michael Eisner (Disney). Assign each group one industrialist, or allow groups to choose (preferably without duplicating choices). Each groups is to find at least two sources that contain information about its industrialist's character traits and create a chart comparing their industrialist with Milton Hershey. Allow time for groups to complete their work and to post their charts near their original lists of Hershey's character traits.

6. Structure brief group reports on their research. If the group reports suggest that consensus will be possible, you may want to conduct a group discussion designed to reach agreement about the five traits most important to success as an industrialist.

7. To assess student learning, assign the following essay:

> Write an essay describing the five most important character traits for a successful industrialist. Use Milton Hershey and other industrialists discussed in the lesson to explain and illustrate your points. Be sure to provide reasoned support for your position.

## Extension/Enrichment

Have students consider who the people quoted on Handout 1 were. Some were obviously employees; the relationship others had with Hershey is less clear. How does knowing the relationship between two people influence our analysis of what one says about the other? For example, would it change students' opinion if they knew that Radebaugh was Hershey's best friend? his fiercest competitor? Challenge students to look for quotations about current businesspeople from both friends and foes. How do they interpret the quotations in light of the relationships?



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# Views of Milton S. Hershey: Excerpts from Interviews

### Joseph Gassler

He believed in doing things for himself. Once he packed his suitcase and it was so full that he could hardly close it. I offered to repack it but he would not let me. He got down on his knees on the suitcase and forced it to close. Then he said "Anything you can do for yourself, you must never ask anyone else to do for you."

### John C. McClain

Mr. Hershey in New York one day bought a boat load of cocoa beans at a certain price. Next day it had dropped a cent, giving Hershey a loss of $15,000. I spoke to him about it and regretted that he had lost that much money on the deal. He said to me "Mac, forget all that. After I went to lunch it was ancient history. If you want to get along with me, you will turn your mind on how we can ***make*** $15,000."

### Gallagher

One wonderful thing about him was, nine times out of ten when you approached him to do something the answer was "no." But he never refused to change his mind. He liked to see you fight for what you thought was right. Once he tore Mr. Murrie and me to bits. He told me what he thought about what we were doing. He was really angry. Two hours later I went into his office. I had with me a sample of the bar I wanted. I also had a sample of what he wanted, because I thought that we would have to follow his wishes. But I tried the other first. I took the bar and showed him what I wanted. He simply said, "That's all right." That is all there was to it.

### Monroe Stover

During one of the seasons when the hay crop in this country was subpar we bought a good bit of hay from Canada. When we bought the hay, we got some things that we didn't need or didn't want. That was Canadian thistle. Mr. Hershey was driving around through the farms one day with the farm manager. I'll not mention his name. He (Mr. Hershey) said to him, "We've got to get some men out here to get (rid of) this thistle. It'll be spread all over the farm if we don't get rid of it (now)." So the manager said he would take care of it, but he didn't.

Two or three weeks later, Mr. Hershey took the same trip by himself, and found the thistle was still there. So that's when he dismissed the farm manager. And that was pretty much Mr. Hershey's way of doing things.

All Mr. Hershey expected you to do was (follow orders and) give a day's work for a day's wages. Nothing wrong with that, as I see it.

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Sources: Interview with Monroe C. Stover, Hershey Community Archives HCA06; collection of interviews as part of the Paul Wallace Project, Hershey Community Archives.


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**Harry M. Spangler**

Mr. Hershey was a great boy for the lights. He quite frequently would pass our place, see the light, and say, "I guess you don't need these lights in here," and snap off the switch.

**Ira Shenk**

It use to be against the rules to smoke or have tobacco in the factory. Once Mr. Hershey went into the factory and asked a man if he could give him a smoke — I don't know what it was, tobacco or a cigarette. The man gave it to him, and he (Mr. Hershey) fired him.

**John Stahl**

Mr. Lucas (John Lucas, Branch Manager in New York) said he (Mr. Hershey) came into his office one day with a new suit of clothes. He said, "John, what do you think of this suit?" He had paid, say, about $75. "It is a very good cloth," he continued. "It will outwear several suits."

Mr. Lucus said, "Mr. Hershey, that is contrary to your principles. If you had bought two $25 suits you would give work to more people."

M. S. went out and bought himself a couple of cheap suits.

**Dr. W. D. Horne**

My impression is that his great success is the result of his comprehensive view of things. You know, he would look at the financial, technical, religious, political, study all things to knit them up properly. This coupled with very good judgement and great courage. Sometimes he would think a thing would work and take a chance on it when everyone is afraid. But generally he had it right—correctly.

**Mrs. Laudermilch**

She (Mrs. James Kelley, Milton Hershey's maid) asked Milton one day, "How did you get so rich?" He said, "I started to sprout potatoes for people from Philadelphia to earn money to buy candy. And then I sold that and keep on sprouting potatoes."

**Will. H. Radebaugh**

He had the common denominator of great industrialists, that is complete devotion and concentration on business. You don't look for the well rounded man. The well rounded man is in the second position. Generally great industrialists are weak in other departments. Hershey was opinionated in other fields, but in his own field he was superb.



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# The Rise of Mass Production

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This essay addresses two key themes in Pennsylvania and American industrial history from 1865 to the end of World War I: mass production and the rise of giant corporations. Today, we take for granted the massive outpouring of consumer goods from giant corporations—whether older companies like U.S. Steel or such newer ones as Microsoft. The Progressive Era saw the rise of these huge businesses, called oligopolies; it is to the rise of these corporations that we turn first in this essay. We then examine the advent or adoption of mass production in industry, one of the major factors contributing to the immense growth in the industrial sector from 1865 to 1900; this 35-year period saw a sixfold increase in the manufacturing sectors in Pennsylvania and in the nation. Mass production also changed the nature of work and the work force, the focus of the last section of this essay.

## The Rise of Oligopolies

Corporations expanded greatly in number and size during the late 19th and early 20th century. The growth of corporations did not begin with the Civil War. The Pennsylvania Railroad was the largest railroad company and one of the largest companies of any type in America prior to the Civil War and remained so well after the war, as it continued to grow.

The Jones and Laughlin Company, a once-great steel company, provides an example of how a Pennsylvania company grew during the period. At the time of the Civil War, Jones and Laughlin was a major iron and, soon after that, steel manufacturer. It became one of the "little steel" producers by the early 20th century, not as big as U.S. Steel but one of the largest iron and steel companies in the country.

In the 1870s, Jones and Laughlin's corporate offices included the two partners, Jones and Laughlin, and three bookkeepers. By World War I, Jones and Laughlin had expanded the corporate structure immensely. Instead of just a few bookkeepers who did a number of different jobs—accounting, writing correspondence, receiving correspondence—they now had an army of accountants, bookkeepers, timekeepers, supervisors on the plant floor, middle managers between the plant floor supervisors and the partners—a virtual armada of people. The company itself had expanded its first plant in Pittsburgh and then grew even larger near the turn of the century by building a new plant in Aliquippa, one of the largest steel mills in the Pittsburgh area.

This example was repeated in various ways, through much of Pennsylvania in many different industries, and then again, through much of America, especially the

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northeast and the midwest, which were the industrial heartland of America through World War I. The economy of the United States prior to the Civil War was dominated by small companies or partnerships like Jones and Laughlin. By 1919, just after World War I ended, 80 percent of American workers laboring in manufacturing were employed by large corporations. This was a huge switch in employment, corporate structure, and business organization in Pennsylvania, and to a lesser degree, in the rest of the United States.

Large businesses exerted power and gained great control over entire industries. Their influence and power extended into government as well. Corporations wielded great control over many state legislators, including many in Pennsylvania, and the federal government as well. Federal, state, and often local governments were quite favorable to large business; government officials were generally unwilling to intervene significantly in business affairs.

It is important to remember, however, that not all industries were dominated by large plants and corporations. Many industries were comprised of small firms scattered across the country. A local factory might be the largest employer in town, literally the largest building on the landscape; in the larger state and national context, however, it was small, with local production and control. These small industries found a ready supply of workers in Pennsylvania's smaller towns and major cities.

A number of major industries did become dominated by giant corporations or oligopolies by the end of World War I. By 1919, only five percent of the total number of firms in the United States produced more than one million dollars of goods; however, this five percent produced two-thirds of the value of all products manufactured in the United States. In other words, a relative handful of companies manufactured the majority of goods by value.

Corporations or businesses grew to be very large for a number of reasons. One was to achieve economies of scale. In a number of industrial processes, producing more enabled a manufacturer to drive down the per unit cost of production. By becoming the biggest manufacturer in an industrial sector, a manufacturer also could gain control over prices and sources of raw materials. Such companies gained greater control over markets and thus could set prices. Many industrialists grew their business as a means to control or eliminate competition and ensure high profits.

Achieving stability and predictability within an industry was very important to manufacturers. As capitalists invested more money in expensive mass production processes, they wanted to ensure a return on that capital investment. Because obtaining that return might take a long time, they wanted to achieve stable and predictable profits. They did this in a variety of ways including developing new ways to organize businesses. One new way to organize was through vertical integration of their industry, acquiring or gaining ownership of most or all the steps of production, from obtaining the raw materials to producing and marketing the finished good.

Vertical integration was attractive to firms that had large-scale plants and capitalization such as steel companies. Andrew Carnegie acquired iron and coal mines. He acquired transportation systems to get the iron ore and coal to his plants. He acquired the plants as well and built a vast steel corporation by the 1890s. By merging Carnegie's corporation and other steel companies under one corporation in the early 20th century, U. S. Steel became Pennsylvania's leading steel corporation for much of the century. U. S. Steel controlled approximately 60 percent of American steel production and had the greatest control over competition, prices, and access to raw materials in the early 1900s. U. S. Steel had achieved, more than any other steel company, stability and predictability. U. S. Steel set the prices for the American steel industry.

Another way in which industrialists attempted to achieve control over competition



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was through horizontal integration. Horizontal integration consisted of controlling one step of the entire production process, such as provision of raw materials or the machine production of goods. Achieving horizontal integration was a very effective way of controlling competition.

Industrialists also created different business structures to gain control over competition. After the Civil War, industrialists first tried to use pools—informal agreements among a small group of businessmen in an industrial sector—to set prices, control the market, and control competition. The major defect in pools was that they were voluntary. Time and time again, one or more members of a pool would break out on their own, undercut the rest of the pool, and destroy the informal agreement.

Another strategy industrialists tried by the 1880s was trusts—an unchartered group of businessmen who held stock in several firms. They would hold enough stock so they owned controlling interest over those firms, enabling them to coordinate production, marketing, and prices. By the early 20th century, the courts and federal government increasingly challenged trusts; they therefore became a less effective way of controlling competition.

At the same time, corporations developed another broad form of control called a holding company, versions of which are still used today. A legally chartered or incorporated company held stock in other companies, thus gaining controlling interest in these companies. The holding company itself might not actually produce anything, but it controlled the producing companies. Increasingly, more companies were merged into holding companies. By virtue of their controlling interest, these holding companies gained control over competition. Indeed, between 1895 and 1904, more than 3,000 U.S. firms were merged into larger companies and disappeared from the business landscape.

John D. Rockefeller was an industrialist who mercilessly and ingeniously got rid of the vast majority of his competition. Rockefeller became a very important figure in the oil industry and in northwestern Pennsylvania. From 1860 until the turn of the century, Pennsylvania was the major producer of oil in the nation and world. The modern oil industry began outside of Titusville in northwestern Pennsylvania.

Rockefeller began as a small businessman in Cleveland, Ohio, where he owned an oil refinery. Rockefeller gradually bought other refineries in the area and tried to undercut competition by increasing efficiency and gaining control over refined oil prices. As he gained control of more refineries and produced more refined petroleum products, Rockefeller became the largest oil customer of the railroads. Railroads were key to marketing oil. While oil was produced in fairly remote regions of Pennsylvania and Ohio, the major markets were located in the cities of the northeast. Railroads provided an efficient way to move oil. Because Rockefeller was the railroads' largest oil customer, he could demand the best shipping rate. He got the railroads to charge him 10 cents a barrel to transport his oil. He also got the railroads to charge his competitors 35 cents a barrel. To top it off, railroads gave him a rebate of 25 cents for every barrel that his competitors shipped. If Rockefeller increased his output, he profited. If his competitors increased their output, he still profited. Either way, Rockefeller won. When oil was increasingly shipped by pipeline to major centers and refineries on the east coast, Rockefeller bought out more of the pipeline companies as well.

By 1879 Rockefeller controlled 90 percent of the refining capacity in the United States. This was an amazing feat in an industry that had started only 20 years earlier as a very decentralized, small-scale industry. He effectively eliminated competition. Rockefeller formed a trust in Ohio in 1882, to control 40 other oil companies. It was broken up by the courts in 1890. In 1899 Rockefeller formed a holding company, Standard Oil of New Jersey. Most of Standard Oil's holdings were elsewhere in the country, but it was incorporated in New Jersey because New Jersey had some of the

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most favorable laws in the country governing holding companies. The courts broke up Standard Oil of New Jersey in 1911.

Rockefeller also expanded vertically into marketing so that by 1904 he achieved overwhelming dominance in the oil industry. His power and control in the market stood unchallenged until new oil fields were discovered in Oklahoma, Texas, and California. Even so, Standard Oil remained one of the major oil companies, a great example of corporate ingenuity and corporate ruthlessness in and outside Pennsylvania.

## The Advent of Mass Production

The growth of the giant corporations and the spread of mass production were certainly related phenomena. Key features of mass production—interchangeability of parts, standardization of finished parts and goods, continuous flow of goods in the manufacturing process, and development of specialized production machinery—meant that adoption of mass production of goods allowed capitalists to increase their profits and meet growing industrial competition.

Industrialists adopted mass production in part to decrease cost and increase efficiency. In many industries there was growing competition during the Progressive Era. Jones and Laughlin, for example, were under great pressure, as were other Pennsylvania steel companies, to cut costs to maintain profits and their competitive edge.

Again, mass production did not begin after the Civil War. Some industries introduced many aspects of mass production before the war. Industries such as gun making, sewing machine manufacturing, textiles, and manufacturing of some farm machinery had aspects of interchangeable parts, standardization of goods, or specialized production machinery prior to 1860; however, these concepts spread quite rapidly between the Civil War and World War I.

The rise of mass production meant major changes for industrial workers. Through the Civil War, most workers manufactured parts manually and individually. Each part was, at least in its finest details, unique. For example, in the 18th century, a Pennsylvania gun maker made each part of a gun individually, including filing the part down to size. It took a lot of time and labor. Because there was no standardization, one gun part could not be interchanged with another. By the turn of the 20th century, the parts of a gun were made to finer and finer standardized tolerances, so the need to hand file a part was greatly decreased or eliminated. As a result, the per-unit cost went down with standardized, interchangeable parts that could be manufactured more quickly and with much less labor.

It is important to understand that the adoption of mass production varied greatly from industry to industry and across time and place. Different industries in Pennsylvania adopted aspects of mass production at different times. Workers, in turn, were affected differently in various industries and at different times.

Pennsylvania, into the early 19th century, was known as the breadbasket of America. More grain was raised and transformed into flour in Pennsylvania's local gristmills with their stone grindstones than any other state. But midwestern grain growers developed gigantic flourmills employing metal horizontal rollers instead of grindstones. These 19th-century inventions more uniformly ground the grain into flour and helped increase the scale of production by the late 19th century. Cities like Minneapolis and St. Paul, in the grain belt, became major flour milling centers, with much larger production facilities than the older flourmills in Pennsylvania. Flour milling, along with employment in flour mills, shifted from Pennsylvania to the Midwest.

Another Pennsylvania industry was textiles, including cloth production and clothing production. Mass production of cloth in America began by the turn of the 19th century. Between 1800 and 1820, a number of mechanized textile mills replaced hand production in Pennsylvania. Gradually, the


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hand spinning machine was replaced with water-powered machinery.

The mechanized spinning of textiles such as cotton was divided into more discrete, more specialized, and less skilled processes. Instead of one or two spinning machines in 1810, a manufacturer might have several different, more specialized machines after the Civil War engaged in the spinning process. The worker became very much a machine tender in the textile industry, for example, taking off full spools of wound cotton yarn and putting on empty spools to be filled up.

Weaving took longer to mechanize. In Philadelphia until the late 1800s, hand loom weaving persisted even though giant textile companies and smaller textile firms existed only a few blocks away. The hand weavers carved out a niche market because they produced specialty and high quality goods that mass producers could not make. Still, as manufacturers gradually increased the speed of power looms and the complexity of patterns that could be woven on power looms, hand loom weavers were, almost to the person, driven out of business.

Textile manufacturers did not have a lot of control over the cost of raw materials. They did not raise the cotton or wool; they bought it from other producers. They did not usually have much control over the cost of technology either. Most textile mills did not make their own machinery; they bought it from machinery companies. They did have control over the cost of labor, and they increasingly divided labor into more specialized and less costly tasks that required less skilled workers. As in other industries, they sped up the machinery. They also instituted the stretch-out—increasing the number of machines one worker could tend. In the 1800s, a weaver might have tended one loom. By mid-century, he or she was tending up to four. By the end of the century, one worker might tend twelve or more looms at a time. Stretching out the number of machines and the amount of work that the workers were doing helped increase profit and meet competition.

Another side of the textile industry, the ready-to-wear clothing sector, is a good example of how mass production was adopted unevenly. By World War I, mass production was still not adopted in part of the ready-to-wear industry. At this time, machines could cut out cloth to make pieces of clothing, such as the pieces of a suit coat. However, manufacturers had not yet developed a way to sew the pieces together automatically. Small factories cut out pieces from the cloth produced in textile mills, but there mass production ended. The cut pieces were farmed out to sweat shops, where individuals, especially women and children, often working in their own homes, sewed the pieces together. Sweat shop conditions were often deplorable and wages miserable.

A third example of how mass production developed was the iron and steel industry. The Pennsylvania iron and steel industry greatly advanced its adoption of mass production after the Civil War. Before the Civil War, Pennsylvania had scores of iron furnaces scattered across the state. For their time, they were big operations, even though they would later be dwarfed by the turn-of-the-century iron and steel mills.

In the mid-19th century, railroads were demanding a more durable material for rails. Iron rails were made by taking a stack of iron and melting and welding it together in a furnace. Those rails had a nasty habit of delaminating or springing up. It was often disastrous for railroad passengers to have a rail spring up into their car. Railroad companies, which were major consumers of iron, demanded a more durable material; the fledging steel industry knew that material was steel. However, at first they could not mass produce steel in sufficient quantities or at affordable cost.

The English in the 1850s created a process centered on the Bessemer Converter, which enabled them to mass produce steel for the first time. The American iron industry adopted this process during the 1860s. The first commercially successful production of steel in America began in Steelton, Pennsylvania, at the Pennsylvania Steel Com-

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pany. The mill was half financed by the Pennsylvania Railroad and was built next to the main line of the Pennsylvania Railroad. The Pennsylvania Steel Company was the major steel rail producer for the Pennsylvania Railroad and, early on, one of the major steel rail producers in the country.

The steel industry adopted other mass production technology that enabled it to increase the output of the steel plants. For example, late 19th-century workers had to take ingots of steel cast from a converter and roll them into different shapes, such as different sizes of steel rail or, by the early 20th century, I-beams used in huge bridges and skyscrapers.

In the 1870s workers rolled steel largely by hand. Using metal tongs, a crew of men would lift up a block of red-hot steel or iron and feed the metal into rollers. A second crew on the other side of the rollers would catch it with tongs. The metal was then fed through by hand again and again. The workers kept rolling it and lengthening it until they achieved the needed size and shape.

By the turn of the century, most of those men had been replaced by automatic powered conveyers and guides that fed the steel ingots into the rollers. A steel ingot was fed by metal roller conveyor into one set of rollers, then automatically conveyed to another set, and so on, until the ingot was rolled to finished shape. It was automatically passed through in a continuous flow, greatly reducing the amount of labor required.

Adopting such machinery greatly increased the capital needed to fund steel plants but greatly reduced the cost per ton of steel. Steel was a very expensive product in 1865, but by 1900 it was being mass produced and was the preferred building material for industrial America. In the space of only a few decades, mass production of this very important material transformed America.

## The Changing Nature of Work and the Work Force

Standardization and interchangeability of parts made it possible to create assembly lines as well as to speed up production, increase output, and decrease cost. As a consequence of these changes in production processes, the nature of work also changed by 1900.

Workers on assembly lines perhaps experienced the greatest changes from earlier production methods. Depending on where someone worked on the assembly line, a worker might never see the raw materials come in to a mill. The parts came to the worker, who put one part into the larger product; then the product disappeared down the assembly line for other workers to add other parts. The worker did not need much skill to put that one piece in the larger product. It did not take much time to learn how to do the job. Workers had less control over the work pace, and indeed over what work was done. These were very important changes for workers during the later 19th and earlier 20th century.

Workers also had their labor divided into smaller, more discrete, and less skilled tasks. This happened with the assembly line, but it also happened in other forms of mass production, even when there was not a conveyor belt or other means of continuous flow to bring the product past the worker. As workers needed fewer skills and worked at lower paying jobs, they quite often had less pride in what they did.

Changes in the production process also separated the mind from the hand. In many larger factories, workers did not decide what they were going to do on the shop floor, how they were going to work, or in its most extreme form how they moved. Managers told workers what to do and made most of the decisions, so that the decision making of the mind was separated from the hands that were doing the actual production. This was a major change for many workers in industrial Pennsylvania and industrial America.


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The separation of hand and mind could be seen most obviously with the institution of scientific management, which began, in part, in Pennsylvania. The leader of this movement, Frederick Taylor, conducted some of his first time-motion studies and first implementation of scientific management at Bethlehem Steel Corporation in Bethlehem and Mid Vale Steel Corporation in Philadelphia during the 1870s-1890s. Under scientific management, a manager watched workers closely and observed how quickly and efficiently they moved, timing their every movement and seeing how quickly they could make a product or part. Frederick Taylor and his disciples tried to tell workers more efficient ways to move and work to speed up production and cut costs.

Scientific management also included improved cost accounting. In some early 19th-century industries, such as textile manufacturing in Pennsylvania, costs were crudely calculated by establishing how much money was left over when the plant closed or how much cash might be on hand at any one time. By the Civil War in the textile industry, and by World War I in many other large industries, managers knew to the tenth of a penny, and in some industries to the hundredth of a penny, how much it cost to produce a pound of steel, a yard of cloth, or another product. Trying to meet competition, companies improved their ability to calculate costs, a major feature of Frederick Taylor's scientific management.

Scientific management also included efficient layout of factories. Machinery and plant floors were arranged to facilitate and increase the efficiency of moving materials and parts through a plant floor and then out the door once they were finished products.

Few employers adopted all of scientific management, but they did adopt many of its features. Some employers were benevolent, but other employers were literally calling their workers pieces of machinery that they could replace. They viewed workers as the cogs in the larger mass production machine.

In a number of industries, there was a gender division of labor. Many industries, such as steel mills and coal mines, overwhelmingly employed men. Employers kept women out of such jobs because they involved dirty, dangerous, heavy work. Textile mills, however, employed a predominately female work force. Textile work was mostly unskilled, or semi-skilled, so that manufacturers could pay women less and cut production costs. Textile manufacturing did not demand the heavy physical labor that coal mining required and was not as dangerous, so employers felt they could employ women and pay cheaper wages.

Increasingly, industries were under growing competitive pressure. They sought whatever way they could find to cut costs, maintain profits, and, if possible, increase profits. Employing lower paid women and children was one way to do that.

Children were employed in unskilled, low paying jobs. Child labor was not effectively outlawed in Pennsylvania or the nation until the 1930s. Before then, families sent children off to work to support the family. If family members could obtain only unskilled low paying jobs, they often had to send more members of the family into factories or to other kinds of employment. Many families were pressured to take children out of school at an early age and send them into paid employment.

In textile mills, boys and girls were often given different jobs. Girls might be bobbin tenders, replacing the bobbins as they became empty. Men and boys worked a type of spinning machine called a spinning mule. An adult operated the spinning mule while boys scurried underneath the machine, tying broken pieces of yarn together.

In some factories and industries, there were also ethnic divisions of labor. Pennsylvania steel mills employed Italians and Mexicans in hot places in the mills, such as blast furnaces. They reasoned that these immigrants came from hot climates and could do hot work.

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Labor was racially divided as well. African Americans, generally, had the worst jobs. In steel mills they were often part of gangs of laborers, employed, for example, to move a pile of ore from one spot to another. They held the least skilled, lowest paid, and often the most dangerous and dirty jobs in the factory.

## For Further Reading


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## Document-Based Lesson 2

# Industrialization in the Hershey Chocolate Factory

**Valarie Mayle**
**Camp Hill School District**

### Historical Background

The pace of industrialization increased in the United States during the second half of the 19th century. With a growing population in need of bulk commodities, an abundant supply of natural resources, and advances in technology, entrepreneurs began to focus on producing manufactured products for the nation's consumers. Taking control of their share of the market required businessmen to increase efficiency and decrease costs. One way to do this was to mass produce large quantities of goods.

Several important changes in manufacturing made mass production a reality. The use of machines to do what skilled workers once did by hand allowed for product standardization and increased production. The assembly line required less skilled workers. As a result, costs to the consumer were lowered, and higher profits were realized by the manufacturer.

One businessman who incorporated these features into his business was Milton S. Hershey. In this lesson, students will examine his factory's mass production of chocolate; the source material used is a company pamphlet published in 1924.

**Objectives:** After completing this lesson, students will be able to:

1. Create a flow chart outlining how a chocolate bar was made in 1924 and indicate what aspects of the process provide evidence that chocolate was mass produced.

2. List jobs in the chocolate making process and the skills necessary to complete each job.

3. Speculate about the different skills required to make chocolate by hand.

**Time Required:** 2 class periods

**Materials and Preparation:** You will need copies of Handouts 2 and 3. Students should have some familiarity with the characteristics of mass production before you use the lesson.

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## Procedure

1. Ask students if any of them have ever made chocolate candy at home. If so, ask if they remember what steps they went through in making the candy. If not, allow students to speculate on the steps that might be involved in making candy.

2. Remind students that during the Progressive Era, goods, including candy, began to be mass produced. Review what the term *mass production* means, ensuring that interchangeability of parts, standardization of goods, and ease of assembly are mentioned.

3. Explain that students will be reading a primary source, a pamphlet that describes how Hershey's chocolates were made in 1924. Distribute Handouts 2 and 3. You may want to have students read the pamphlet as a group, in small groups, or individually, depending on students' reading ability and your own preference. Working in groups or individually, students should read the pamphlet (Handout 2) and answer the questions in Handout 3.

4. Conduct a class discussion of the reading, reviewing the questions on Handout 3:

- ❑ What is the title of the pamphlet? *Hershey Products: How They Are Made*
  Who produced the pamphlet? *The Hershey Chocolate Company*
- ❑ This pamphlet was designed to inform the public about how Hershey products were made. It was also designed to persuade the public. What was the Hershey Company trying to persuade the public of? Find words in the pamphlet that support your view. *Students may respond that the pamphlet was designed to persuade people that Hershey made a quality product, that the product was good for you, that Hershey was a good company to work for, and (ultimately) that people should buy Hershey products. A few of the many examples of words designed to persuade are: "The Hershey Chocolate Company purchases only beans that measure up to the most exacting standards," "Every particle of Hershey gum is clean and pure," "This is extremely important in every stage of the production of pure and digestible food products."*
- ❑ What raw materials did the Hershey Company use to make its products? Where did they get each raw material? What types of transportation were used to bring the raw materials to the factory? *Hershey used cocoa from Central and South America, Africa, and Ceylon, probably shipped by boat; milk from Pennsylvania transported by truck, trolley, and railroad; and sugar cane from Cuba transported by train and boat.*
- ❑ On the back of this page, draw a flow chart showing the process of making chocolate. Which steps provide evidence that the Hershey Company was mass producing its chocolate? *The flow chart should resemble the model on page 35. Evidence of mass production can be seen in the description of the overall assembly line process, in which workers do only one task related to creating the product; the description of mechanization of tasks, such as roasting ("The Hershey roasters are equipped with mechanisms that at a set temperature slide the beans away from the heat"); and in the description of the standardized and perfect products.*
- ❑ Examine the photographs in the pamphlet. What do they indicate about the gender of the workers in the factory? *All are men with the exception of the wrappers. The wrapping job was held by women. (Note: An examination of the U. S. Census indicates that females were employed throughout the plant in different positions but most were employed in the wrapping department.)*

5. Discuss with students the level of skill needed to perform most of the jobs described in the pamphlet. How would the skills required by workers compare with the skills required


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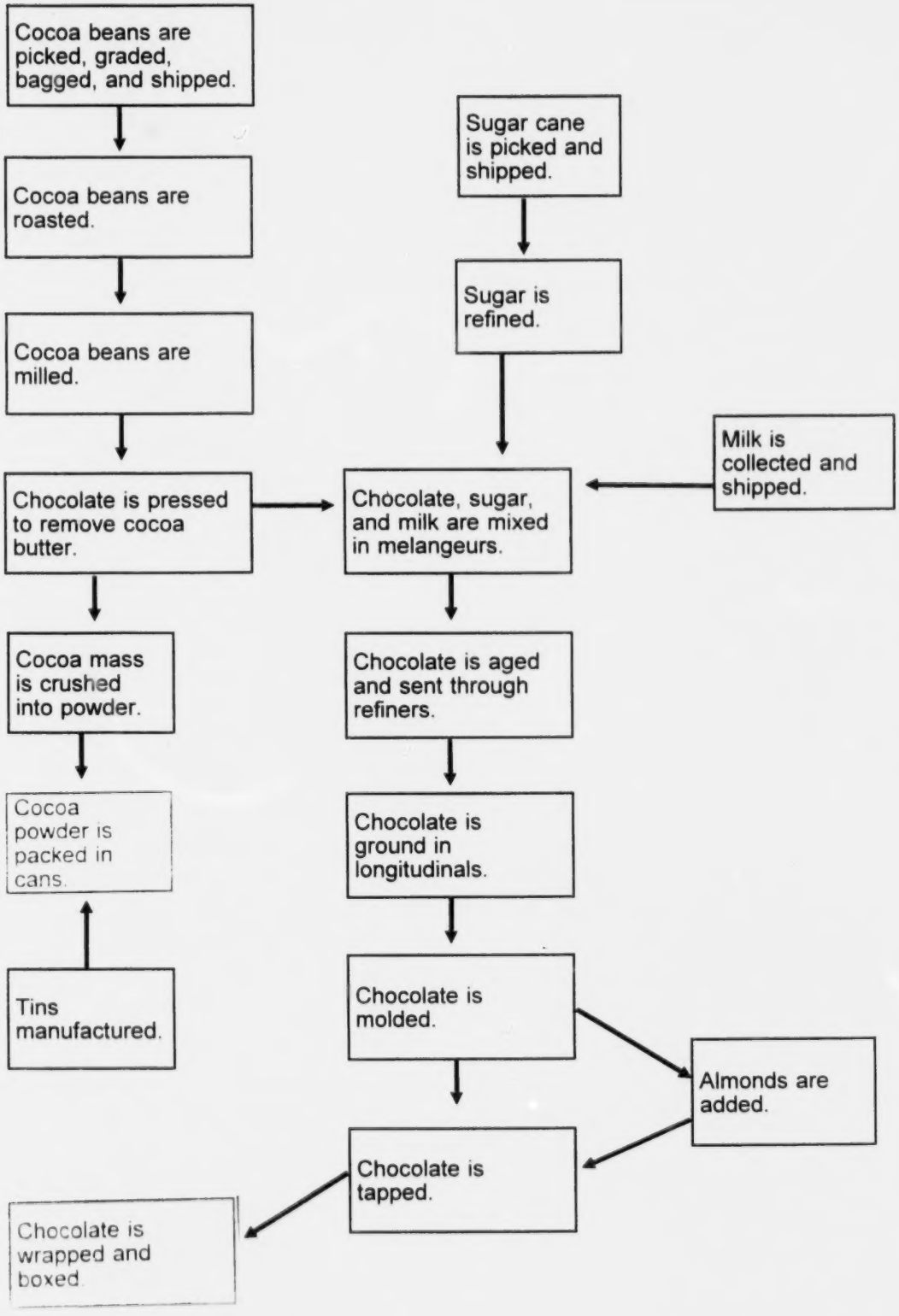
Cocoa beans are picked, graded, bagged, and shipped.
Cocoa beans are roasted.
Cocoa beans are milled.
Chocolate is pressed to remove cocoa butter.
Cocoa mass is crushed into powder.
Cocoa powder is packed in cans.
Tins manufactured.
Sugar cane is picked and shipped.
Sugar is refined.
Milk is collected and shipped.
Chocolate, sugar, and milk are mixed in melangeurs.
Chocolate is aged and sent through refiners.
Chocolate is ground in longitudinals.
Chocolate is molded.
Almonds are added.
Chocolate is tapped.
Chocolate is wrapped and boxed.

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to make chocolate from beginning to end by yourself? Which would be more rewarding—participating in mass production of chocolate or making it yourself? *Most of the jobs required only skill in using the particular machine involved, although the brochure does mention that expertise was especially needed in picking and roasting the cocoa beans. Making chocolate from beginning to end by yourself would require more knowledge and skill and would probably be more interesting and rewarding.*

6. To assess student learning, ask each student to select one of the jobs in making chocolate and imagine that he/she has that job. Each student should write a letter to a friend or relative explaining how chocolate is made and outlining the skills the student needs to do the job selected. The letter should also persuade the reader to either apply for a job at the factory or look for work in a shop where candy is not mass produced.

## Extension/Enrichment

Suggest that students look for similar brochures explaining how a company's products are made today. They may try to find such brochures by writing to companies, visiting local manufacturers, or visiting companies' web sites. Does this type of primary source serve the same purpose it did in the 1920s? What is that purpose? How effective are the various examples students have examined? Would students interpret a modern brochure differently than the historic example? Why or why not?




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# Hershey Products: How They Are Made (1924)

Source: *Hershey Products: How They Are Made*, 1924, Hershey Community Archives, Box 11 Folder 16, 87006.

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Home of the Hershey Chocolate Company. Modern daylight plant of steel, stone and cement. 35 acres of floor space. 8,000 acres of farms

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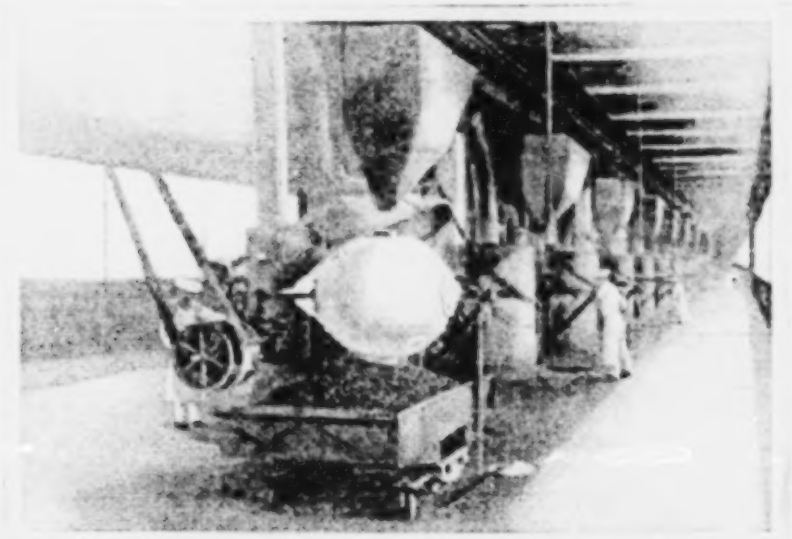
**The Source and History of Cocoa** Cocoa is the product of the seeds of the evergreen plant *Theobroma cocao* grown in the tropics. It was discovered in Mexico where it was a favorite drink that was adopted and spread abroad by the Spaniards. It is now grown in Mexico, Equador, Venezuela, Brazil, Cuba, Porto Rico, Haiti, San Domingo, Trinidad, Jamaica, Gold Coast of Africa, Portugese East Africa and Ceylon. The trees, twenty-five to forty feet high, are in constant bloom, the small flowers changing to cucumber shaped pods. The pod has an outer shell a half inch thick and contains from twenty-five to forty seeds surrounded by sweet pulp. The pods are broken and the seeds and the pulp are removed and are sweated or fermented at a temperature of 86 to 87 degrees from nine to twelve days, which modifies the bitter taste and developes a rich brown color. The beans are then dried, graded and bagged for shipment. There is wide variety in the merits and food value of cocoa beans and the ultimate quality of all cocoa and chocolate products depends on the use of prime stock. The Hershey Chocolate Company purchases only beans that measure up to the most exacting standards. No second-rate stock and no beans from poor crops are ever used. The Hershey Company has so systematized and protected its supply that it has first-hand knowledge of the cocoa crops in every country and obtains only the best.



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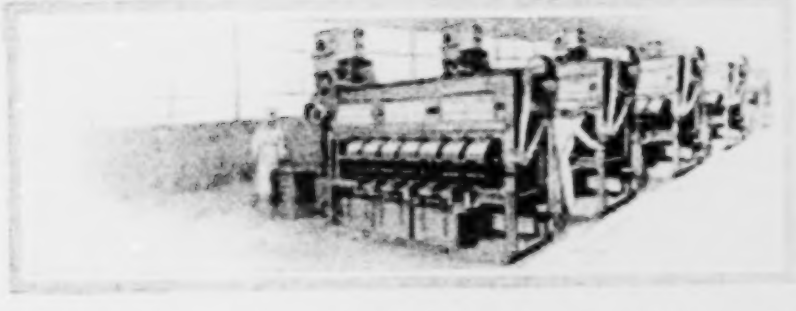
**Roasting** Beans in the raw state are turned in this revolving drum or sphere and are roasted by flames from below. It is the first important step in the manufacture of cocoa and chocolate. The food value is determined largely by the accuracy and thoroughness of this process. Here the mechanism is scientific. It developes the aroma of the bean, changes the coloring, renders soluble the starch particles, dries the husk and the bean so that the husk can be removed readily, and frees the bean of moisture, the presence of which would hinder the complete mixing of the fatty nibs when crushed and would tend to destroy the keeping qualities of the cocoa and chocolate.

No technical description can fully convey the very large importance of good roasting. The Hershey roasters are equipped with mechanisms that at a set temperature slide the beans away from the heat. Then they are tested by the Hershey experts and the roasting is completed to the exact point under personal care. If the bean is not roasted enough it is indigestible. If it is roasted too much the flavor is spoiled and the food value lowered. In this department we have thermometers, automatic watchers and skilled men all devoted wholly to seeing that the beans are roasted perfectly. Another point of Hershey thoroughness is that the factory spends a fortune annually in hand-picking the beans. Many employees work on this one thing—every bean is examined.



**Hulling and Cracking** In order to have first-rate cocoa and chocolate the beans must be well cleaned. Here the process is as near perfection as it is humanly possible to bring it. The roasted beans are crushed between rollers and are then separated into (a) fatty nibs, the basis of cocoa and chocolate; (b) the hard elongated germ or eye; (c) the husk or shell. The broken nibs are separated from the husks by systems of sieves. Nibs and germs are separated by special types of sifting machines. The factory makes no use of the husks, which are hauled away and used for fertilizer.

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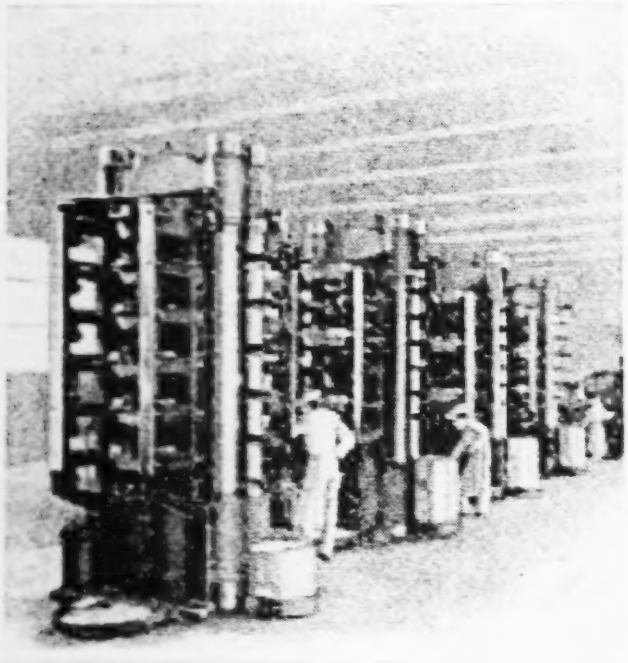
**Milling** The mills consist of a series of three sets of steel-encased granite burr stones placed one above the other. The nibs are put in at the top and become increasingly smooth as they pass from one to the other set of stones. The product is drawn off as liquid chocolate or pure chocolate which may be run into moulds making baking chocolate, or mixed with milk and sugar making milk chocolate or made into breakfast cocoa by removing part of the cocoa butter as explained in the next process.



**Cocoa Butter Presses** Chocolate from milling machines is placed in a round steel pot equipped with a filter pad to keep the cocoa mass intact. Pots are mounted in a vertical hydraulic press capable of subjecting the chocolate to a pressure sufficient to remove a certain amount of cocoa butter which is drawn off in containers at the bottom of the press. The butter is pale yellow and of pleasant odor. Removing the excess of butter fat leaves cocoa with the right quantity of fat for a healthful drink.

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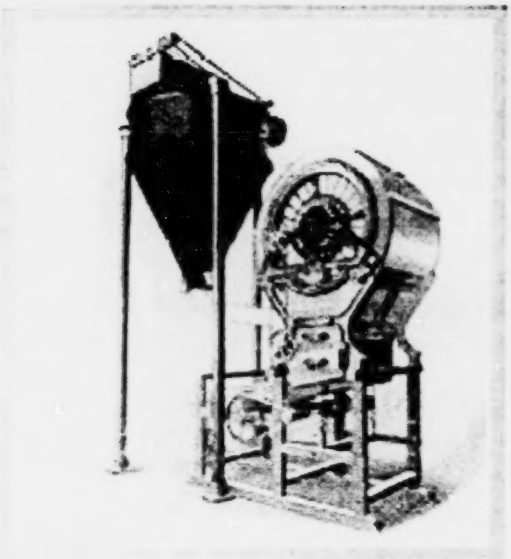
**Cocoa Making** The cocoa mass in cake form from the cocoa butter presses is allowed to cool and is then placed in a crushing mill and reduced to fine powder. The fine powder is bolted like flour through a fine mesh silk sifter and is ready to be packed in cans or other containers for the market. These cans and containers numbering millions are made in the Hershey factory. Several tons of tin are used every day. The cans are filled with cocoa automatically.



**Mixing in Melangeur** The melangeurs are equipped with a granite base over which two granite rolls turn. Pure Chocolate, sugar and milk, with pure cocoa butter to produce the desired consistency, are placed in this machine, and these ingredients are thoroughly mixed into a homogeneous mass. This is then run through steel rolls to refine it and is stored in a hot room until properly aged. Careful attending is paid to proper temperatures and right ventilation in the plant. This is extremely important in every stage of the production of pure and digestible food products.

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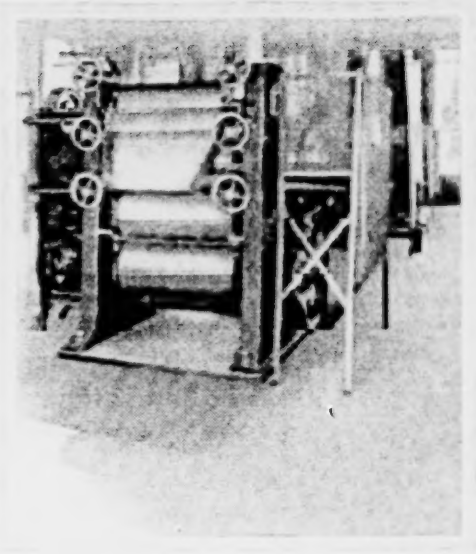
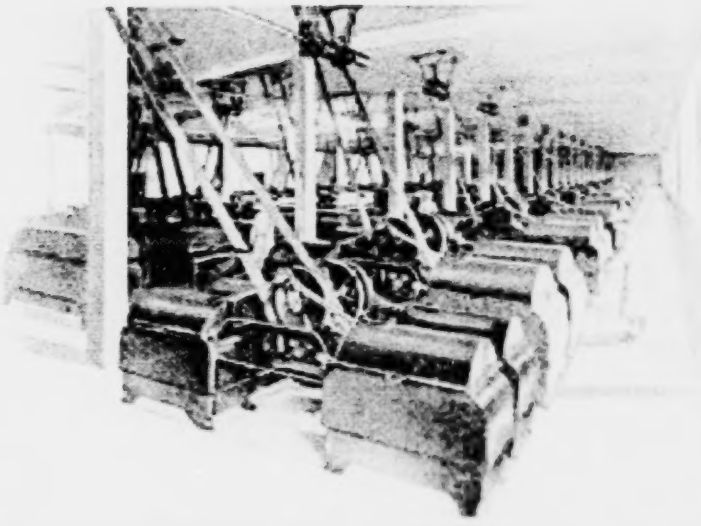
**Refiners** The refiners consist of several steel rolls revolving against each other. Cocoa butter is added to the material after aging and the mixture is passed through the refiners which greatly improve the smoothness of the chocolate. The more perfectly the refining is done the better is the quality of the product. To obtain the proper results it is essential to have the knowledge and attention of experts. The refining is under constant scrutiny. From the refiners the chocolate goes to the longitudinal machines seen on next page.





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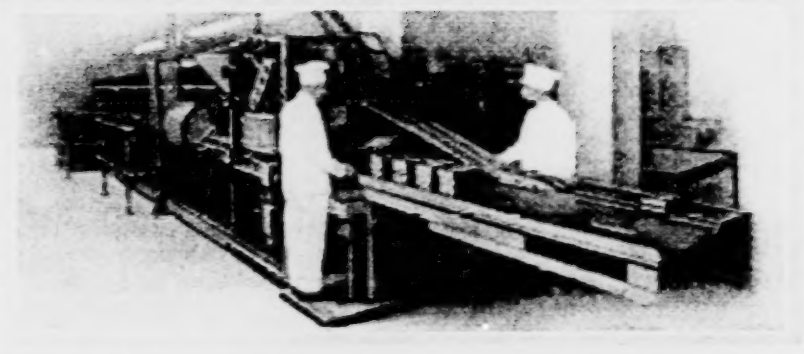
**The Longitudinals** This is the room that makes an indelible impression upon every one of the thousands who visit the plant and who see how Hershey products are made. However, the illustration shows only a part of the unique equipment of these extraordinary machines, of which there are over 200. No other chocolate factory has so many and no other chocolate factory in America has a fifth of that number. The grinding in the machines goes on constantly. The longitudinal machine is a trough shaped basin lined with granite over which a large granite roll passes. Chocolate from the refiners is rolled by this granite on granite until perfect smoothness has been attained and the highest possible perfection in refining has been reached. There is no other operation comparable to it in the manufacture of chocolate. It gives the fine, velvety smoothness, flavor and aroma which can be found only in the Hershey chocolates. Those who seek to know why the Hershey goods stand in a class by themselves find here one of the big reasons. Here, too, they find the substantial details of the Hershey plant. Near the site of the factory was a quarry furnishing superior limestone. This limestone became the keynote of the factory's architecture, standing for excellence and durability. Other materials were steel and cement, so that these rooms will last for centuries and the foundations are so solid that the movement of over 200 machines causes no vibration.



**Moulding** Chocolate from the longitudinal machines is run through a cooling apparatus into a mechanically operated mould which presses the chocolate into the mould and passes it to what is called the tapping table, operated with a rocking motion that firmly settles the chocolate in the moulds, eliminating the air bubbles and assuring a smooth surface. In Almond Bars the almonds are automatically pressed into the bars before passing to the tapping table.

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**Wrapping** The finished chocolate is properly cooled, knocked from the moulds and wrapped by machines. These machines wrap the chocolate in tin foil or glazine paper, enclose printed matter and finish the operation by applying the well-known maroon wrapper. Finished goods are immediately packed in boxes and hermetically sealed. This operation attracts much attention from the visitors to the Hershey plant. It is one of the Hershey processes that make the handling of food products as mechanical as possible.

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**Milk** In the milk chocolate and other products of the factory enormous quantities of milk are used. The daily flow is from 150,000 to 200,000 pounds. This comes from hundreds of farms in the counties of Dauphin, Lebanon and Lancaster, and it is collected and transported by motor truck, trolley and railroad. The handling of this supply is in itself a great feat of organization and management. The Hershey Chocolate Factory was placed in the bowl of the Lebanon Valley because it was the center of the richest and best milk supply in America. An important part of the Hershey proposition is the farm department. More than seventy-five farms were purchased and modernized and on most of them model dairies were built. They contain 1500 high-grade cattle. The milk is used in the factory. All farms which supply milk to the factory, whether owned by the Hershey interests or others, are under the constant attention of Hershey inspectors and the milk that reaches the factory is the purest and cleanest that can be secured. On the Hershey farms the cows are mainly Holsteins but there are fine herds of Brown Swiss and Ayrshires. The cows have sanitary stalls and are under skilled men. The barns are planned for light and cleanliness and are scientifically ventilated. Thus a Hershey farm becomes a practical school of the new agriculture. These farms and dairies are visited by thousands from all parts of the world.



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**Chewing Gum** Demands from dealers in Hershey chocolate and cocoa goods led the Company to enter upon the manufacture of chewing gum. There was an enormous use of this product and there were literally hundreds of kinds that were being widely sold, a few having merit but the great majoirty utterly bad. So, the Hershey Company was asked to produce something to which the public might pin its complete faith. This was not done hurriedly. Experts were employed to minutely examine materials and the best mechanical ability was enlisted in the selection and manufacture of machinery. For months experiments went on in the factory and the products were tested over and over before any Hershey gum was placed on the market. Finally the thing was done, and it was amazing how quickly the orders exhausted the production. It all began in 1915 and since then it has been a matter of getting machines and materials to keep within distance of the demand. Hershey gum sells six sticks for five cents. It is the finest Mexican chicle, which comes from the Sapodilla Plum, a tropical evergreen tree that grows in the West Indies and Central America. The best chicle is from Mexico. The special department in the factory of the Hershey Chocolate Company for chewing gum manufacture is noted for its brightness and spotlessness. All the workers wear sanitary outfits. Every particle of Hershey gum is clean and pure.

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**From Cane to Chocolate** To secure the best and most digestible chocolates it is necessary to have cane sugar of superior grade. For sometime the Hershey Chocolate Company has had in its plant a complete sugar refinery. It purchased prime raw sugar from the leading Cuban plantations and refined it to the precise point where it would blend best with the chocolate, but even this was not quite satisfactory to the Hershey policy. In 1916, Hershey interests bought ten thousand acres of sugar plantation in Cuba and acquired control over other acreage, with the result that the cane will be grown and ground in Cuba and the sugar will be brought to the factory in Hershey where it will be refined. For handling the supply a new railroad is being built in Cuba and by ferrying across the Florida Straits the sugar can be brought by the carload from the Hershey plantations in Cuba to the Hershey factory in Hershey, Pa. Very remarkable work is being done by the Hershey interests in Cuba and it is a counterpart of the success that has been achieved in the Lebanon Valley. The development in Cuba is along advanced and progressive lines and it is proposed to raise enough sugar of the finest quality to meet the vast and growing needs of the factory in Hershey. All Hershey chocolate and cocoa products are made in Hershey—it is important to remember that.

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## *High Food Values of Hershey's Products*

The figures below are from official sources. A calorie is the unit measure of food value.

| | | |
|---|---|---|
| 1 Pound | Hershey's Milk Chocolate | 2335 Calories |
| 1 " | Sweet Chocolate | 2165 " |
| 1 " | Cocoa Powder, (Hershey's) | 1890 " |
| 1 " | Hershey's Premium Chocolate | 2711 " |
| 1 " | Fat Beef | 1396 " |
| 1 " | Hershey's Almond Bars | 2600 " |
| 1 " | Lean Beef | 1105 " |
| 1 " | White Bread | 1200 " |
| 1 Dozen | Eggs | 1180 " |
| 1 Pound | of Potatoes | 295 " |
| 1 " | White Fish | 475 " |
| 1 " | of Beets | 160 " |

**Hershey** Hershey is located in Dauphin county, Pa., 12 miles from Harrisburg, 12 miles from Lebanon, 99 miles from Philadelphia, 168 miles from New York. It was begun in 1903. It is the home of a group of enterprises which include the production of standard food articles, farming and dairying, merchandizing, banking, transportation, printing and schools, with services such as telephone and water companies, parks, theaters, cafes and amusements; in all a score of undertakings employing 2200 men and women. The schools, farms, dairies and transportation lines extend the property interests into three counties, thus making the town the community center of a large area and of several times its resident population of 2,000. This new type of town is a settlement of homes with city advantages in the country. It is founded on a pure food business that requires health, cleanliness and fresh raw materials of prime quality. These needs fits directly in the welfare of the community and thus the town and the business have prospered with mutual benefits. Hershey is a town of large spaces averaging an acre of ground to each inhabitant. Every new dwelling has a yard and garden. Its people work and live in fresh air and the town has an unlimited supply of filtered mountain water. The Hershey Chocolate plant, fronted and flanked by ample parks, is practically a factory in the country. Visitors are always welcome.

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# Guide for Analyzing "Hershey Products: How They Are Made"

Read the pamphlet reproduced on Handout 2, and study the photographs. Individually or in a group, answer the questions below.

1. What is the title of the pamphlet? _____

   Who produced the pamphlet? _____

2. This pamphlet was designed to inform the public about how Hershey products were made. It was also designed to persuade the public. What was the Hershey Company trying to persuade the public of? Find words in the pamphlet that support your view.

3. What raw materials did the Hershey Company use to make its products? Where did they get each raw material? What types of transportation were used to bring the raw materials to the factory?

4. On the back of this page, draw a flow chart showing the process of making chocolate. Which steps provide evidence that the Hershey Company was mass producing its chocolate?

5. Examine the photographs in the pamphlet. What do they indicate about the gender of the workers in the factory?



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# Hershey Chocolate as a Branded Consumer Good

Daniel P. Duerring
Wyalusing Area School District

## Historical Background

A fundamental change that occurred during the Progressive Era was the use of brand naming by companies. By placing their label as well as a trademark on the packaging or the product itself, companies hoped that their name and product would become associated with such positive characteristics as purity. This association would encourage the consumer to purchase their product instead of a rival product even if there was little difference between the two. Name recognition allowed a company to dominate the local, regional, national, and international markets and to set prices at profit-producing levels. Consumers were willing to pay those prices because they associated the company's product with quality.

Companies tried to create distinctive labels that would convey their mass-produced brand name items. Through advertising campaigns, the companies could expand their market share and sell their product to as wide a market as possible, resulting in higher company profits. The Progressive Era was the start of mass consumer consumption.

Milton Hershey, as an entrepreneur in the confectionery industry, introduced brand naming to his product very early in the history of the Hershey Chocolate Company. By examining Hershey labels and advertisements, students will gain insight into the qualities that Hershey tried to associate with his products.

**Objectives:** After completing this lesson, students will be able to:

1. Define and provide examples of the following terms: branded consumer goods, brand naming, trademark, mass production, and mass consumption.

2. Locate brand names and trademarks of selected Hershey Products and list the positive qualities the Hershey Company wanted their brand name to be associated with.

3. Create an evaluation tool for use in comparing brand name and generic products to determine if the brand name product delivers what the manufacturer promises.

**Time Required:** 1-2 class periods

**Materials and Preparation:** You will need copies of Handout 4, as well as contemporary examples of food labels or advertisements and samples of generic and brand name



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products for students to compare. Coordinating the advertisements and samples would be useful; candy/chocolate, peanut butter, and cereals would be good possibilities.

## Procedure

1. Ask students to identify some brand name products in the classroom. (*Examples might be pens, computers, notebooks, clothing, backpacks, shoes, etc.*) Ask: What do we mean by a brand name? Why might a manufacturer want a brand name associated with its product? (*A product that has been given a name by its manufacturer to differentiate it from other, similar products. Levi's is an example of a brand name for a particular kind of blue jeans. Consumers associate brand names with certain qualities and therefore may buy a certain brand name over and over.*)

2. Explain that prior to the Progressive Era, consumer goods were generally not branded. However, as corporations began mass producing goods, they wanted to sell more of those goods in order to make larger profits. One strategy they developed to do that was brand naming, marking their product with a company name and trademark (symbol) and using advertising to associate that name and trademark with certain desirable characteristics, such as purity, good taste, beauty, etc. People responded to this method, buying more goods. Thus, the Progressive Era saw the beginning of mass consumption.

3. Distribute Handout 4 and allow time for students to examine the sources presented. Conduct a class discussion of the handout, using the following questions:

- What brand name can be read on the product packaging in the advertising, labels, price lists, and posters? *Hershey*
- Describe the trademark printed on these items. *The Hershey trademark during the period was a young child sitting inside a cocoa bean. In some of the trademarks, the boy is holding a Hershey's milk chocolate bar while in others he is holding a cup most likely filled with Hershey's cocoa.*
- According to the manufacturers, what is the purpose of the trademark? *The trademark "will enable the discriminating purchaser to become an expert in detection of the genuine from the imitation, the good and true product from the false and fraudulent, the real substitutes from the shadow - and guarantees a guide to satisfaction and a stamp of excellence."*
- After examining the advertisements, labels, price lists, and sources, list qualities that the manufacturer wanted the consumer to associate with the brand name. *Some examples that students might list are: sustaining, sweet, excellent, made on the farm, genuine, good and true, real substance, guarantee satisfaction, rich, delicious flavor and aroma, pure, palatable, high in nutrition, natural, free of all alkalies and chemicals, good, fresh, delicious, of superior quality, sterilized, and a meal in itself.*
- Hershey stressed in his advertising that the product was "made on the farm where herds of Alderney cattle ... drink the unpolluted water from natural springs." Why did the company emphasize its location? *Manufacturing the chocolate near the source of the milk allowed the milk to be fresh and pure when it entered the plant. During the industrial age, consumers were concerned with the pollution of the city. Hershey stressed purity to overcome this fear. The chocolate was produced away from the heart of "thickly populated cities." In this way he assured the public that his chocolate was not "polluted with dust, soot, and other impurities." Hershey stressed this link by placing the product name on the side of a*


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*dairy cow and by using cows and the trademark together when advertising the product.*

4. Ask students to speculate about whether a chocolate company could make the same claims today that Hershey made in the early 1900s. Explain that in 1906, Congress began regulating the labeling of products because of some of the outlandish claims made by manufacturers of foods and patent medicines. Today there are rather strict requirements for the labeling of foods. Still, manufacturers try to associate their products with qualities they believe consumers want.

5. Display the advertisements or labels that you have brought in and ask students to identify the qualities that the manufacturer is trying to associate the product with. List the qualities students suggest on the chalkboard.

6. Next, tell students to imagine that they are product testers for a consumer watchdog organization. They are to create an evaluation tool (such as a checklist) that will help them determine whether the brand name product delivers what the manufacturer promises when compared with generic products. You may find it works best to conduct this part of the activity in pairs or small groups.

7. Allow students to use the evaluation tool they developed to test the brand name and generic products you brought to class. Discuss whether students are in agreement about the quality of the brand name versus generic product.

8. To assess student learning, have students design an advertisement to inform consumers of why manufacturers use brand naming and how to evaluate the claims made for brand name products.

## Extension/Enrichment

Challenge students to find examples of other brand name products from the Progressive Era. A useful site on the Internet is from the Post Cereal Company, which provides a history of its products at http://www.kraftfoods.com/postcereals/heritage.html. Students should analyze examples they find to see what qualities these manufacturers tried to associate their products with. Can they see evidence that qualities that appeal to consumers have changed or stayed the same over time?



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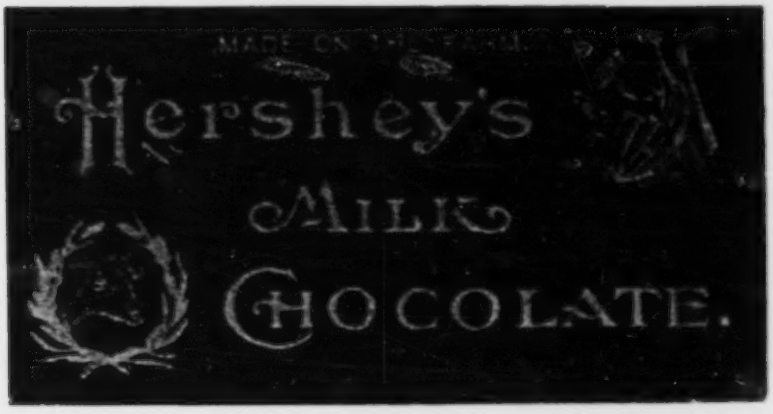
# Creating a Brand Image for Hershey Chocolate




## Sources:

Brochure, *Hershey's Milk Chocolate*, ca. 1905, Hershey Community Archives, Box 11, Folder 1, 87006.

Poster, *Hershey's Milk Chocolate: Made on the Farm*, ca. 1915, Hershey Community Archives, 87006, Box 13, Folder 12.

Price List, *Hershey's Milk Chocolate: A Nutritious Confection*, January 15, 1914, Hershey Community Archives, 87006, Box 18, 1901 - 1918.

Label, *Hershey's (Almondine) Milk Chocolate*, Hershey Community Archives, not dated, 90.015, Box 7, file 51.

Label, *Hershey's Sweet Milk Chocolate, More Sustaining than Meat*, not dated, 90.015, Box 3, File 20.

Advertisement, *Hershey's Milk Chocolate: A Meal in Itself*, 87006, Box 18, File 52.

Label, *Hershey's Milk Chocolate: A Nutritious Confection* (original in white and gold), ca. 1900, 90015, Box 7, folder 7.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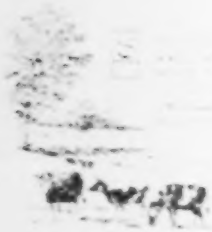
Hershey's Sterilized Milk Chocolate.



HERSHEY'S BAKING CHOCOLATE

HERSHEY'S MILK CHOCOLATE

AND COCOA PRODUCTS

HERSHEY CHOCOLATE COMPANY

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# Price List

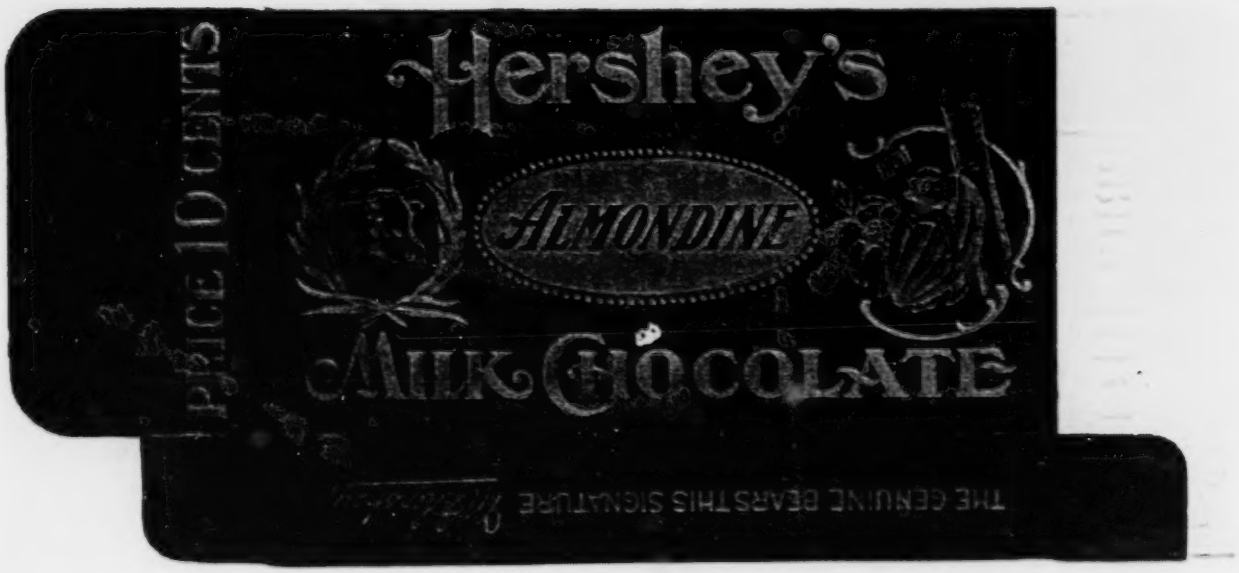
January 15, 1914

# Hershey's Milk Chocolate

## A Nutritious Confection

TERMS: 30 Days Net
2 Per Cent. Cash 10 Days
F. O. B. Hershey, Pa.

HERSHEY CHOCOLATE COMPANY
HERSHEY, PA., U. S. A.
THE CHOCOLATE TOWN

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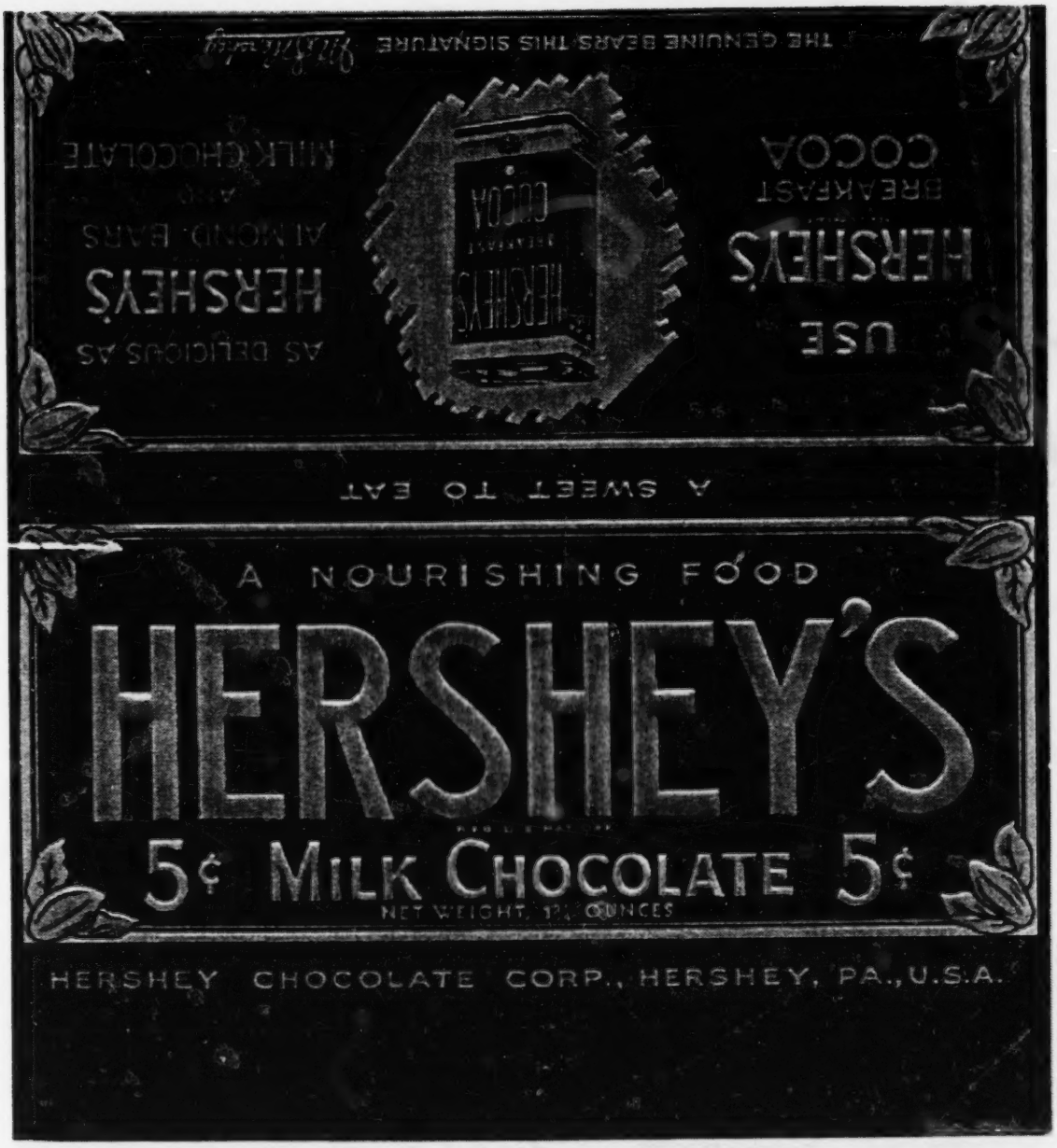


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# HERSHEY'S
## *Milk Chocolate*

## *A Meal In Itself*

MADE IN HERSHEY, PA., "THE CHOCOLATE AND COCOA TOWN"

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HERSHEY CHOCOLATE CO. LANCASTER. PA. U.S.A.

# Hershey's MILK CHOCOLATE.



A NUTRITIOUS CONFECTION.

HERSHEY'S STERILIZED MILK CHOCOLATE

is especially recommended for Cyclists, Athletes, Ladies and Children. It is most sustaining, being amalgamated by special process with the finest *Fresh Milk*.

Every hygienic care is taken in the selection and treatment of the Cows which supply the milk. By the combination of the two substances of which it is composed, *Chocolate and Milk* makes a delicious article of food.

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# The Lives of Working People in the Progressive Era

Walter Licht, Ph.D.
Professor of History
University of Pennsylvania

The Progressive Era is a label historians apply to a two-decade period in American history, largely 1898 to 1918. This 20-year period witnessed remarkable calls for reform of American political, social, and economic institutions. Every now and then Americans experience spasms of social activism and reform initiatives; the last was in the 1960s. During the first two decades of the 20th century, the nation experienced such an upheaval involving different groups of people in all regions of the country.

In this essay, we begin with a broad overview of American mobilization for reform in the Progressive Era. We then turn to labor history in the era, as well as in the period leading up to that 20-year span. Finally, we turn to an examination of labor history in Pennsylvania, looking at case studies related to Pennsylvania's two great manufacturing centers, Philadelphia and Pittsburgh, and the anthracite region of eastern Pennsylvania.

## Reform in the Progressive Era: An Overview

During the Progressive Era, Americans mobilized, calling for regulation of corporations and financial institutions. There was also a kind of cleansing of American politics of its worst aspects of corruption. Other reforms called for were women's suffrage, temperance, kindergarten programs, and settlement houses. This multifaceted era of reform activity came in response to the extraordinary changes that had occurred in American society in the last quarter of the 19th century.

No other 25-year period saw such fundamental changes in American life. If you went to sleep in 1875, you were in a world with few corporations. If you woke up in 1900, corporations dominated the economic landscape. When you went to sleep, the highest buildings in most cities were three or four stories high; skyscrapers with elevators dominated the urban physical landscape just 25 years later. Few people in 1875 knew the word *electricity*, while America had electrified street lighting and electrified trains just a quarter century later. Few thought of the gasoline-driven vehicle in 1875. Twenty-five years later, cars were on the nation's roadways. Examples of changes abound.

In terms of its population, the United States before 1875 contained people of western European and African heritage, while 25 years later we appeared a more polyglot people with massive immigrations from eastern and southern Europe. Similarly, only a few localities could be designated as cities in

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1875. We were very much an urban society just 25 years later.

No other era in American history witnessed such fundamental transformations. The last quarter of the 19th century saw the rise of the corporation, great technological innovations, intense conflict between capital and labor, the massive arrival of immigrants from eastern and southern Europe, and the rise of the city. Americans would be shaken by these changes; the Progressive Era represented a political response to the challenges presented by the great economic and social shifts of the last quarter of the 19th century.

Historians debate how to interpret this era. There is no single, clear interpretation. Rather, five major ways of looking at the Progressive Era can be noted.

First is a traditional perspective, which holds that good people rose up with humanitarian and liberal intentions to restore some authority and responsibility to the individual and counter concentrations of political and economic power. Average Americans accordingly gained power in political decision making and regulation of economic activity. This is a classic high school textbook view of the period: The good people rose up to control the bad people of the age, the corrupt political bosses and the robber barons. This interpretation is called the agrarian interpretation because it is related to interpretations of Populism, perceiving Populism and Progressivism as similar movements.

Since the 1950s, historians have not held to such a positive interpretation of the era. Richard Hofstadter's great Pulitzer Prize-winning work, *The Age of Reform*, presented a less benign interpretation. Hofstadter pointed out that it was not the people writ large who called for and enacted reform, but rather a particular set of actors, namely displaced elites, who were seeking to reclaim their slipping status. Hofstadter characterized his Progressives as white, Anglo Saxon, Protestant, urban, middle class, educated patricians. These declining elites rose up in the face of various challenging newcomers, including nouveau riche industrial magnates and immigrant political bosses, to bring back some nobility to political life, to restore some order and their authority as well. Since Hofstadter's revisionist portrait, three other interpretations have also spoken to specific actors rather than the people at large as Progressive Era reformers.

One recent interpretation points not to old elites but to new elites as champions of reform. This view highlights the role of new professionals and managers, who identified with technology, rationality, and planning and sought to bring the United States into the modern age. They lobbied for government legislation to stabilize economic and social life.

A slightly different version of this story singles out corporate businessmen as the spearheads of reform, as they put in place regulatory measures that secured steady corporate profits. Finally, there is a reform-from-below interpretation that asserts that laboring people and their protests were the source of Progressive Era reform.

One can play a game here: Will the true Progressives please stand up? Careful study will show that various people advocated reform. The Progressive Era, in fact, constituted a multifaceted response to the extraordinary transformations of America that occurred between 1875 and 1900. Many groups, often with conflicting interests and needs, proselytized, petitioned, and lobbied for change, winding up supporting similar reforms. It is the convergence of efforts that is notable for the period.

A good example of the multifaceted quality of Progressive Era reform is provided by the enactment of workmen's compensation laws at the state level during the first decades of the 20th century. This classic example of reform also speaks to the question of working people's lives during the Progressive Era. Workmen's compensation laws established state-administered insurance funds from which workers injured on the job could draw benefits; the funds were sustained through employer and employee payroll con-


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tributions. These systems remain in place today.

Workmen's compensation was one of the great reforms of the Progressive Era. In the early industrial period and the Progressive Era, industrial accidents led to massive fatalities and injuries. A basic reality of working class life in the late 19th and early 20th centuries was the more than likely possibility that some relative, either an immediate or extended family member, would be injured on the job and that the family would be put in crisis. This was not exceptional; it was the norm. In the mining industry, for example, in any given year during the late 19th or early 20th centuries, one in 35 workers was permanently maimed and never able to work again. One in about 130 was killed. In the railroad industry during this period, about one in 70 was permanently maimed, never to work again. One in 200 was killed. Few safety precautions or devices had been installed. Managers and executives did not spend money to implement the kind of safety measures that were needed. The families involved were at the mercy of different forces. Workers had nothing to rely on.

Private insurance plans existed, but the premiums were much too costly for the average working class family. Occasionally, a kind owner of a firm might give a gratuity to a family, perhaps paying for funeral expenses, giving a widow a few dollars, or hiring a young son when a working father was seriously injured or killed on the job. The survivors of such situations were at the mercy of friends, relatives, and altruistic bosses.

A convergence of reform efforts by various types of people allowed reform to happen. The first type of people who called for reform were the good people, the humanitarians, people like Jane Addams. These great social justice figures of the age spent their lives doing good works. They, to use the title of Jacob Riis's muckraking book *How the Other Half Lives*, told the affluent half of Americans how the other half barely survived. They played to the hearts of legislators when they came to legislative hearings with photographs and anecdotes about families that had suffered through the occupational injuries and deaths of their breadwinners. There is a great deal of truth in this high school textbook version of reformers as humanitarians and good liberals who sought social security measures for those who suffered, but it is not the entire story.

Another group of people who sought workmen's compensation laws were trade union leaders. They did not play to the hearts, though; they played to the minds. They told state legislators, "If you don't do this, we're going to go on strike." They practiced realpolitik. "And if you don't do this, you know, there are radicals out there who are organizing workers and if you don't initiate these kinds of reforms, these radical labor leaders are going to have a greater voice in working class communities. Listen to us, the more respectful working class leaders. You had better put this reform in place." Legislators did listen.

The third influential group to lobby does not appear in high school textbooks. Top executives of the national corporations also spoke for workmen's compensation laws—not directly, but through their representatives, their public relations people and lawyers. Why? First, corporate magnates at the time faced constant attacks and smears in the press by muckraking journalists. Appearing benevolent made for good public relations, but their position also made very good business sense. The titans of industry operated national corporations and were wary of local problems that they could not control. Specifically, if an employee was injured on the job, a local jury, populist-minded with anti-monopoly, anti-corporate sentiment, could hear the case and rule that the accident was the result of negligence on the part of management. Enormous damages could then be assessed. Corporate leaders therefore sought to take injury cases out of the courts and adjudicate them administratively, not politically. Workmen's compensation laws created administrative procedures to handle such issues.

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When appearing before state legislative committees, lobbyists for the national corporate leaders also made sure that laws were written to their advantage. Clauses were thus adopted stating that if workers sought benefits from state workmen's compensation systems, they waived their rights to seek damages in court, thereby deterring threats of judicial proceedings. A second stipulation corporate interests fought for was use of a dual tax to raise funds for the compensation systems. Workers contributed a portion of their wages. The corporations would not be taxed alone.

Workmen's compensation laws removed occupational injury and death claims from the courts, forestalled union confrontations, and created government procedures and agencies to handle claims and benefits, thus allowing large-scale businesses to operate more predictably. Humanitarian reformers, trade unionists, and top corporate leaders thus participated in Progressive Era reform initiatives. What is notable is the extraordinary convergence of efforts, different groups seeking greater stability and securities after the tremendous transformations of the last quarter of the 19th century. Some Americans (e.g., small business owners) did oppose such reforms as workmen's compensation because they could not afford the added expense. National corporations passed the costs of regulation and taxes onto consumers in ways that small business owners could not.

## Labor History Before and During the Progressive Era

Like the story of reform, the history of labor during the Progressive Era—the history of working people's lives, their work, their organizations, and protest activities—must begin in the preceding quarter century. The 25-year period between 1875 and 1900 witnessed intense and violent confrontations between capital and labor. Major events of the period included the great railroad strikes of July 1877, which paralyzed the nation's commerce and saw the properties of the Pennsylvania Railroad in the city of Pittsburgh burned to the ground. On May 1, 1886, union organizers called for a national strike on behalf of the eight-hour workday that would lead to the famous Chicago Haymarket Square riot and bombing. Another dramatic confrontation of the period occurred in Homestead, Pennsylvania, in 1892 during a steelworkers strike. The famous Pullman strike and boycott of 1894 drew international attention.

Besides these extraordinary national confrontations, the last quarter of the 19th century also witnessed intensive local strike activity. Government investigators recorded no less than 1,300 strikes per year across the country during this period, involving an average of 250,000 workers annually. Grass roots insurgency and community uprisings accompanied the labor unrest.

The period also saw a great deal of labor organizing, which started during and after the Civil War with the formation of the nation's first federation of unions, the National Labor Union. The NLU sank in the depression of the 1870s, but was superseded by the Knights of Labor, which in its heyday in the 1880s enrolled more than a million members in the United States and Canada. Out of the Knights of Labor came the American Federation of Labor. Labor activism in the last decades of the 19th century thus included both informal insurgency and formal organization of workers.

No single explanation accounts for the great worker unrest of the period. Circumstances and causes of protest varied across localities and decades. However, two overarching reasons can be cited. First, the period was marked by economic crisis. Two major depressions occurred (1873-1878 and 1893-1897). The nation experienced a serious recession between 1884 and 1886. The economy was in a boom-and-bust cycle and was unstable. The bad economic times created material grievances and hardships that contributed to the great labor protests. Corporate leaders, in fact, would seek during the Progressive Era stabilizing measures that would put the economy on an even keel.


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In addition, something much more ideological, even spiritual, was behind the labor unrest of the last quarter of the 19th century. Something had happened to the American republic, which had been a republic of yeoman producers based on the vision that everyone who worked hard could achieve economic autonomy and true citizenship. All of a sudden, something new had appeared, a phantom in the midst of the republic: corporations with extraordinary economic and political power. Laboring people protested against the bad economic times, but the threat of the corporation to cherished notions of the republic intensified the conflict.

Americans entered the 20th century on the heels of a 25-year period of confrontation between labor and capital. Remarkably, the Progressive Era was, in comparison, a fairly stable time, certainly not as tumultuous as the preceding quarter century. There were exceptions, with radical organizations such as the Industrial Workers of the World, appearing in the Progressive Era. The so-called Wobblies conducted very dramatic strikes, particularly in textile areas in 1912 and 1913. Newly arriving immigrants from southern and eastern Europe joined organized labor's ranks in the garment and other trades. In 1902, a strike of Pennsylvania anthracite coal miners threatened the commerce of the nation. Still, the Progressive Era did not witness the rush of either the extraordinary or the multiple local strikes of the late 19th century. The number of strikes decreased greatly in the period.

Several reasons can be cited for the decline of labor protest. Government officials delivered the message that if workers rose up, armed troops would be brought in to quell violence and disorder. The judiciary played a great role here. One of the ironies of the period was the use of the Sherman Anti-Trust Act. Between 1890, when it passed, and 1914, when it was revised, the Sherman Anti-Trust Act was employed in a great many more instances against labor unions for restraining trade than against corporations. State laws and common law rulings also put a complete damper on worker organizing. Judges frequently enjoined workers from assembling, talking among themselves, even thinking about a strike, if their behavior was deemed as a conspiracy to harm or constrain trade. The judges did not need the Sherman Anti-Trust Act; they used common law principles.

Businessmen also reacted to the tumult of the preceding years, seeking means to enforce greater worker diligence. They adopted various strategies for bringing a modicum of order to the workplace, some involving the stick, some the carrot. Managers moved fully to mechanize and eliminate skilled labor. Skilled workers were the most difficult to control and provided organizing and strike leadership. The use of foremen in factories grew tremendously during the Progressive Era as another means to achieve labor discipline. Business executives experimented similarly with so-called scientific management methods, pioneered and popularized by Philadelphian Frederick Winslow Taylor. Scientific management involved studying jobs, breaking them into component tasks, and assigning workers to these detailed divisions of labor with incentive wage systems promoting greater productivity. Hiring practices changed as well. As native-born workers were seen as responsible for labor protest, business started to hire more immigrants, whom they deemed as more tractable. That approach did not always produce the desired results. Management thus increased efforts to investigate the backgrounds of recruits to weed out potential troublemakers and to spy on workers on the shop floor to find and fire union organizers.

These represented "stick" practices. There was also the "carrot" approach. The Progressive Era witnessed the initiation of various corporate welfare programs. Major firms began to experiment with expanded fringe benefits to encourage greater loyalty among their workers. This included everything from company softball teams and turkey give-aways on Thanksgiving to stock option plans and health, life, and pension insurance.

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In addition to responses by legislators, the judiciary, and managers to the turmoil of the late 19th century, conservative leadership in the trade union movement during the Progressive Era also contributed to the de-intensifying of labor protest. With the dissipation of the Knights of Labor by the 1890s, the labor movement came under the leadership of Samuel Gompers, head of the American Federation of Labor. Gompers warned of the extraordinary new powers of corporate capital and the state and began to argue that workers had to be more realistic. Building disparate mass movements like the Knights of Labor proved illusory, and labor should not waste energies on utopian schemes and politics. The trade union movement needed hardheaded strategies aimed at getting precise gains for workers, namely higher wages and shorter hours. Gompers further stressed that labor should concentrate first on organizing the organizable, skilled workers, who had the most leverage at the workplace. Gompers was able to withstand attacks from more militant labor spokesmen and put his stamp on what emerged as the mainstream trade union movement of the period. He even began to collaborate with various corporate executives, claiming that if they dealt with him and his workers, he would bring peace to the shop floor. If they did not, then management would have to deal with the radicals.

Gompers's accommodationist strategy did help craft unions and skilled workers, primarily white, largely Anglo-Saxon, Protestant, non-immigrant, male workers. Left out from under the AFL umbrella were African American, immigrant, and women laborers. Conservative, mainstream trade unionism in this way played a role in checking labor protest, making the Progressive Era with a few exceptions a much quieter time on the shop floor and in working-class communities than the prior quarter century.

## Case Studies in Pennsylvania's Labor History

Where does Pennsylvania's labor history fit in light of national developments both before and during the Progressive Era? Somewhat different histories can be discerned in Philadelphia, the anthracite region, and Pittsburgh.

### *Philadelphia's Labor History*

Understanding the story of labor in Philadelphia requires understanding special aspects of Philadelphia's industrial history. The industrial structure constructed in Philadelphia greatly differed from Pittsburgh, and the lives of working people in the two cities varied accordingly. By the time of the Civil War, Philadelphia had emerged as the number one manufacturing center in the United States. Philadelphia would ultimately be in the shadows of Pittsburgh and Chicago, but in 1860 it was the nation's premier manufacturing center.

Philadelphia's characteristics were quite particular, however. First, a hallmark of Philadelphia industrialization was diversity. This was not a one-industry town. A vast array of products was manufactured in Philadelphia, ranging from varnishes and paints to bricks, books, jewelry, and dental instruments. Also produced were many different kinds of textiles and garments. Philadelphia emerged as a diversified manufacturing center. Secondly, the city housed a diversity of work environments. In 1860, production of goods occurred in the home for direct family consumption, in the home for sale in the marketplace, in small sweatshops, in craft shops, in larger shops where there was no machinery, in larger shops where there was machinery, in tiny mills, medium-sized mills, and large mills. As work environments varied enormously, so did work experiences.

Specialization in both products and processes represented a second hallmark of Philadelphia industry. Philadelphia manufacturers produced non-standardized goods, small-batch orders of custom items. Textile production in the city varied significantly from New England, for example, where massive mills ground out a standardized broad cloth. Famed Lowell, Massachusetts, had fully integrated mills where the raw material


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was treated, cleaned, stretched, twisted, and then woven, bleached, and dyed under single roofs. The textile firms in Philadelphia manufactured fine cloth in different steps in different establishments. One firm cleaned and carded the fiber, another firm spun it, another firm wove the yarn, and another firm bleached or dyed the woven product. Small to medium-sized family-owned and -operated enterprises were the norm in textiles and other trades in the city.

Even large-scale manufacturers produced specialized products. Baldwin Locomotive was by far the largest firm in Philadelphia, but the company never produced two engines that were the same. It built specialty engines, each to order. Baldwin did not compete with other companies that fabricated standardized engines. It prospered by catering to the specific needs of various carriers

The whole structure of diverse work environments, specialization, and small to medium-sized businesses had two critical implications for the working people of Philadelphia. Specialized production required a skilled work force. Of all the manufacturing centers in America, Philadelphia had the highest percentage of skilled workers. This shaped the ethnic profile of the city. Philadelphia's population was disproportionately comprised of British, German, and native-born skilled workers. Immigration patterns in general were different from other cities. More Irish women, for example, found a place in Philadelphia than Irish men. The women served largely as domestics or worked in the textile and garment mills. Unskilled Irish men had fewer opportunities, although many would ultimately occupy skilled positions. Similarly, when Polish and Italian immigrants arrived in Philadelphia later in the 19th century, they did not have trade skills required in Philadelphia industry. They left to find work in anthracite coal mines north of the city or in the steel mills of Pittsburgh. Philadelphia in fact had the smallest percentage of eastern and southern Europeans and the highest percentage of British and German workers of all manufacturing centers in the country. The ethnic makeup of that city then had a great deal to do with its particular industrial base.

The industrial structure shaped the working-class life of the city in a second way. Specialized light industry provided employment opportunities for single women and children. Philadelphia had one of the highest percentages of child and women's labor force participation of the country's manufacturing centers. In contrast, few opportunities for women and children to work in manufacturing prevailed in a heavy industry city such as Pittsburgh.

During the Progressive Era, Philadelphia reflected events transpiring nationwide for organized labor. The city entered into a period of relative quiet. In fact, a nadir of labor activity had been reached. Philadelphia had been a hotbed of trade unionism and working class activism throughout the 19th century. The nation's first trade union formed in Philadelphia. The city was site to the first great legal dispute involving the rights of workers to unionize, the Cordwainers' Case. The country's first labor newspaper, *The Workingmen's Advocate*, and political party, the Workingman's Party, started in Philadelphia. Two great labor movements emerged from Philadelphia in the 19th century, the National Labor Union led by Philadelphia iron molder William Sylvis and, later, the Knights of Labor.

During the Progressive Era, the trade union movement disappeared from the city. The period saw a counter-offensive against labor and a rollback of labor gains, most notably in the city's important metal and machine trades. There, the metal and machine manufacturers' associations launched concerted campaigns to eliminate trade unionism. The associations singled out the Iron Molders Union, the strongest union and staunchest voice for labor in the city. Among their tactics, the manufacturers created a central employment bureau where recruits and employees in the machine and metal trades were scrutinized. In this way, management filtered out potential troublemakers, workers with trade union pasts. The strategy worked. The Iron Molders un-

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ion had only a limited presence in the city by 1915.

The first decades of the 20th century saw quieter times for Philadelphia's working people. The city was no longer associated with labor uprisings or even labor organization as it had been previously. The city's small to medium-sized specialty firms, producing small batches of custom goods, offered decent jobs. Personal relations between owners and employers affected labor peace, and the work had inherent rewards, not marked by monotonous, mass production.

Philadelphia's specialty manufacturing enterprises, however, remained highly fragile and tenuous. Seasonal and other changes in demand made for fluctuating production. Workers never had steady work. Small to medium-sized firms operating in niche markets faced greater uncertainties than large producers of standardized goods. The great problem for families in Philadelphia was thus irregular employment. Workers could expect to work between 180 and 220 days a year. They might work steadily for six months, then be furloughed for several months until business picked up in their firms or new product lines were developed. The only way to make up for the periodic, inevitable shortfalls in income was to place more breadwinners into the labor market. As a result, Philadelphia had the highest percentage of families in the nation who had two, three, even four members employed outside the home because the prime breadwinner's income was too unpredictable and uneven.

Philadelphia had high percentages of child labor for two reasons. Opportunities for employment in light industry existed for children. Equally important, working-class families needed the extra income children could earn as fathers' earnings fluctuated. State legislators passed laws prohibiting child labor and making school attendance mandatory, but they were largely ignored, as families relied heavily on the earnings of the children. Research indicates that they contributed significantly to family reserves. Many youngsters entered the labor force at 12 or 13 years of age. Their wages accounted for between 20 and 25 percent of family income on average. Primary breadwinners could only support about 80 percent of base family needs, which had to be supplemented by children's labor.

An interesting side note to the realities of working-class life in Philadelphia during the Progressive Era involves homeownership (Philadelphia was dubbed the "city of homes"). A high percentage of laboring families owned their own row houses. A standard explanation for the prevalence of homeownership rests on the immigrant backgrounds of Philadelphia workers. As former peasants, they sought homesteads. This interpretation is wanting since many of Philadelphia's immigrants, especially those from Britain and Germany, came from urban areas. The high percentage of homeownership can be explained in another way when the home is understood as a hedge against irregular employment. If a worker owned his home, he could use it as a source of income. Boarders could be brought in. In fact, boarding was a common practice in working-class communities in Philadelphia during the Progressive Era. Mothers could also bring work into the home. Although many women of the period were listed as homemakers in the census, they contributed to family income through laundry and garment work in the home. An explanation for widespread home ownership lies not just in the affordability of Philadelphia row houses, but in the fact that the home served families in dealing with endemic irregular employment.

At the turn of the 20th century, Philadelphia also had the highest percentage of African Americans of all northern cities. However, African Americans, especially males, faced an absolute freeze from industrial employment in the city. With the exception of the Midvale Steel Company, no industrial firm in the city employed blacks. Racism was so strong in the city that the biggest firms did not even hire blacks as janitors. The only industrial employment open for black women was largely in com-


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mercial laundries. About 60 percent of black women were employed in the laundries in this time period. Even skilled blacks could not find employment in white-owned firms. The 1900 census for Philadelphia lists more than 100 black printers, all employed by the one black newspaper in town, not a single one by the *Philadelphia Inquirer* or *Bulletin*. Similarly, black carpenters were hired by the few black contractors that operated in the city. They catered largely to the black community. The Philadelphia labor story is thus distinctly different for whites and blacks.

### *Pittsburgh's Labor History*

Distinctions can also be drawn in the labor histories of Philadelphia and Pittsburgh. When it comes to steel production in the late 19th and early 20th centuries, Pittsburgh is world historic. By 1910, Pittsburgh had become the world's greatest center for steel manufacture. One-sixth of all the steel produced in the world issued from the steel plants in and around the city. While Pittsburgh's industrial progress first rested on glass production and glass remained a critical source of employment, by the Progressive Era, Pittsburgh was synonymous with steel.

The Progressive Era in Pittsburgh brought notable calm to the city. The last quarter of the 19th century had been tumultuous. During the great railroad strikes of 1877, striking railroad workers and their supporters destroyed the buildings and rolling stock of the Pennsylvania Railroad. Labor protests erupted in the steel industry in the 1880s, culminating in 1892 with the extraordinary Homestead Strike.

Calm returned to Pittsburgh during the Progressive Era through a restructuring of the steel industry and the notable formation of the U.S. Steel Corporation in 1901, which involved the great financial manipulations of J. P. Morgan. Massive steel companies did not emerge immediately in Pittsburgh. The first mills (including those owned by Andrew Carnegie) were relatively small operations, employing 200 to 300 workers. Not highly capitalized entities, they relied heavily on skilled labor. The extent to which the skilled iron and steelworkers controlled production in the early years was notable. A visit to a typical steel plant between 1875 and 1890 would reveal few managers on the shop floor. Company executives left production to extremely knowledgeable and capable workers who worked at their own paces. Workers set production schedules. They knew what had to go into the furnaces and when and exactly how to obtain the correct temperatures. They did not have modern instrumentation, but they further knew from the glow of the fires and the metals exactly when to do the pouring of molten iron or the forging. The owners of these firms challenged workers' control at their risk. Skilled iron men slowed production or walked off their jobs when managers demanded increased production. The skilled toiled intensely and expertly, but they did so at their mutual discretion and with the quality controls that they wanted.

When Andrew Carnegie and other steel magnates decided that they could greatly profit by producing steel at low cost, they determined that the skilled workers stood in the way. That proved the source of the great labor battles in the steel industry of the late 19th century. Ultimately, management won the war and achieved the quietude of the Progressive Era. The battle, however, took place on many fronts and with varied strategies. Managers first looked toward technology. They adopted the Bessemer converter, which eliminated many skilled positions. New instrumentation devices further reduced the need for skilled labor, with workers now serving as dial watchers. Management brought in heavy conveyor moving equipment to eliminate other jobs and semi-automate production.

A profitable return on the investment in new technologies could only be guaranteed with mass production achieved and rivalries eliminated among producers. Firms thus sought to merge, combining resources, raising investment moneys collectively, and reducing price competition. Wall Street financiers, such as J.P. Morgan, facilitated

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the capital concentration process. Greater managerial controls of production could thus be achieved through business consolidations and technological innovation, but no less pressing was the need to defeat the strong unions of skilled workers in the iron and steel industry. The great Homestead Strike of 1892 directly involved Andrew Carnegie's effort to break the power of the Amalgamated Association of Iron and Steel Workers, whose membership included skilled puddlers, molders, and rollers. With the crushing of the Amalgamated, Carnegie and other manufacturers moved to replace the unionists with more docile and cheaper unskilled labor. The massive employment of immigrants who occupied the semi- and unskilled jobs that now existed in the new capital-intensive mills began. A series of initiatives—technological, financial, organizational, and social—brought greater managerial controls at the workplace. The formation of U.S. Steel epitomized these developments. The firm represented by far the largest business consolidation of its day; it had a highly capital-intensive production system and non-unionized immigrant labor comprised the greater part of its work force.

The defeat of the skilled men in the trade and changes in organization had legacies in steelworker communities in the Pittsburgh area. In the first decades of the 20th century, a number of social surveys were conducted in the region. Years after the Homestead Strike, anger and resentment at Carnegie and other steel managers persisted. Resignation, however, was also evident. Laboring people could not effectively counter the steel corporations. The quietude of the Progressive Era rested on such attitudes.

The hiring of unskilled and semi-skilled immigrant workers also proved a successful strategy for steel executives in the short run. These southern and eastern European newcomers had limited experiences with trade unionism. They constituted a polyglot group, and ethnic divides made labor organizing difficult.

The end of World War I, however, would see a resurgence of labor protest in the Pittsburgh steel industry. In the summer of 1919, a dramatic effort to unionize generated the largest strike to date in American history. Within U.S. Steel Corporation alone, 340,000 employees walked off their jobs. The massive importing of strikebreakers and the smearing of the strike as the work of radical agitators would bring defeat for labor once again and new feelings of resentment and resignation in steelworkers' communities in the city. Successful unionization awaited the 1930s and the Great Depression.

The lives of the working peoples of Pittsburgh differed from their counterparts across the state in Philadelphia. Pittsburgh was largely a heavy industry city dominated by steel, with semi- and unskilled eastern and southern European immigrants comprising the greater part of the city's work force. Specialized production and light industry represented the hallmarks of Philadelphia industry. Native-born and British and German skilled workers formed a sizable portion of the Quaker City's laboring population and opportunities for children's and women's labor outside the home persisted.

Such opportunities did not exist in Pittsburgh, thus affecting family life. High school attendance rates, for example, were higher in Pittsburgh; in Philadelphia, teenagers entered the labor force at younger ages. Steelworkers also worked on a much steadier basis than workers in Philadelphia's seasonal trades, and their incomes were more stable as a result. The work in Pittsburgh's steel mills was hard and hellish, but it was constant, and working-class families there did not face the same kinds of problems in making ends meet as their brethren in Philadelphia. Occupational accidents, though, did loom as a greater threat to workers in Pittsburgh's heavy industrial plants compared to Philadelphia. The cities did share one feature. African Americans faced as severe discrimination in hiring in Pittsburgh as in Philadelphia; until the Steel Strike of 1919 and their recruitment as strikebreakers, they found no place in the city's steel industry.





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### *Labor History in the Anthracite Region*

The anthracite region offers another history of labor in Pennsylvania during the Progressive Era. This five-county area in the northeastern part of the Commonwealth contained under its surface 95 percent of the nation's supply of anthracite coal. The Progressive Era actually represents a zenith for the region, because its prior history was marked by development; soon after, the area would enter a long-term period of economic decline that has persisted to this very day. The collapse of the market for anthracite coal brought permanent stagnation.

The concerted discovery and excavation of the highly efficient-burning anthracite coal began in the 1820s and 1830s. Canal and rail transport development accompanied the opening of the coal fields in northeastern Pennsylvania. The Commonwealth's anthracite would help fuel America's industrialization. While small operations marked the early period, after the Civil War the area would see concentration of ownership of coal lands by railroad companies, most notably the Philadelphia and Reading Railroad. Population increased dramatically as various immigrants came to work in the mines. Workers moved in from neighboring states, followed by a succession of immigrant groups—English, Welsh, and Irish and, after the turn of the 20th century, a massive flood of eastern and southern Europeans. Men without training who could not find work in Philadelphia could secure employment in the coal mines.

Labor upheavals became a constant feature of the anthracite region in the developing years. The first strikes occurred as early as the 1830s, and formal organizations of the workers emerged as early as the 1850s. The Workman's Benevolent Association, formed in the 1860s, established a strong foothold but folded during the depression of the 1870s. The Knights of Labor picked up the mantle in the 1880s. In 1893, the United Mineworkers union launched a major organizing drive in the anthracite region; the UMW would soon provide permanent leadership. In 1900, the union conducted a successful strike engaging 125,000 anthracite workers. The region also became famous for more insurrectionary labor protest, especially with the guerrilla warfare of the so-called Molly Maguires in the 1870s. The last quarter of the 19th century was as tumultuous in the anthracite region as elsewhere.

The anthracite region also experienced the relatively peaceful labor times of the Progressive Era. The great 1902 anthracite coal strike played an important role here, as a partial accommodation was reached between the coal owners and the United Mineworkers. The strike began in the late spring, when anthracite miners walked off their jobs seeking union recognition and the so-called sliding scale for compensation. If the price of coal rose or fell, the rate per ton that the miners received would go up or down. Risks and profits were thus to be shared. A third key issue was control over the weighing of the mined coal. The union wanted to control the weighing to counter shortchanging by management. The union call for a strike brought huge support, with 150,000 anthracite miners joining the job action. The union succeeded in gaining support even in small mine patch villages.

The association of mine owners refused to yield to the demands of the strikers, and a standoff continued through late summer. With winter ahead and demand for coal at its peak, the nation's manufacturers and commercial interests began to express anxiety. The coal strike was now threatening the economy. Heavy players soon became involved, including the President of the United States. For the first time in the country's history, in fact, a President became directly engaged in negotiating a labor dispute (presidential involvement in labor conflicts up until the anthracite coal strike had largely involved either the enforcement of federal injunctions or the calling out of U.S. troops to quell disorders). In this instance, President Theodore Roosevelt gathered the parties to the confrontation in the Oval Office and demanded that the two sides resolve their differences.

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A player behind the scenes was J. P. Morgan, who owned the controlling interest of the Philadelphia and Reading Railroad, the major holder of land in the area and the major railroad company shipping coal from the collieries to the nation's cities. Morgan was concerned about what a strike would do to commerce and wanted a solution. Powerful business and political figures thus conferred among themselves to arrange negotiations and agreements. The 1902 anthracite coal strike is an example of Progressive Era reform, with national business leaders actively involved with national political leaders in stabilization of the economy. Roosevelt, in fact, helped forge a settlement in which the parties agreed to the creation of the Anthracite Coal Commission, an agency charged with resolving future labor grievances and disputes in the industry.

The UMW gained and lost in the settlement of the anthracite coal strike of 1902. They did not achieve union recognition, but union negotiators did secure wage increases and controls over the weighing of coal. The Anthracite Coal Commission would work with coal companies and union executives in the future to reach new contracts. Such accommodations arrived at through the intervention of financiers, government officials, and union and company bureaucrats brought Progressive Era quiet to the anthracite region. The result did not come through the heavy-handed tactics of businessmen or state administrators or the conservatism of union leaders, but rather as a convergence of efforts to bring more secure and stable times after the great transformations and tumult of the last quarter of the 19th century. For their part, workers did win improvements in the conditions of their employment; by not directly participating in the negotiation process, however, they became disempowered.

Labor peace and high demand for coal brought prosperity to the anthracite region. The Progressive Era represents an almost golden age for the area, witnessing the building of libraries, museums, and infrastructure in cities. Scranton, Pennsylvania, emerged as a key city, but small towns prospered as well. Neighborhood life was strong, as new immigrant groups established ethnic churches and societies. Coal mining work still had its perils. Labor peace did not end mine disasters. The probabilities of losing a husband or a son to an accident, or having them permanently maimed and never able to work again, remained high. Good business conditions allowed mine owners and workers to thrive (especially with agreed-upon sliding scales of compensation), but occasional slack times were a reminder of the uncertainties of income for the families of miners. Compared to the desperate times to come with the collapse of the anthracite coal industry after 1920, the Progressive Era, however, would be remembered as a time of stability and prosperity.

The economic structures of Philadelphia, Pittsburgh, and the anthracite region differed, and working-class life in the three areas varied accordingly. Specialized production made for uneven employment in Philadelphia, and working families there had to rely heavily on the earning potentials of children. Skilled workers found themselves under severe attack in the consolidated steel mills of Pittsburgh, but for immigrant newcomers the mills offered steady work. Prosperity marked the anthracite region, but accidents in the mines loomed as an ever-present threat to miners and their families.

Similarities are also evident. Conflict between capital and labor and hard times had marked Philadelphia, Pittsburgh, and the anthracite region in the late 19th century. Businessmen, political reformers, and trade unionists alike sought stabilizing measures, and that convergence of efforts typified the Progressive Era. Some measures involved the disciplining of labor on the shop floor and in the community. Other initiatives brought greater social security to working class families. The sum result was less labor tumult.

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# The Lives of Workers in the Chocolate Factory

Valarie Mayle
Camp Hill School District

## Historical Background

The industrialization of the United States in the late 19th and early 20th centuries affected various aspects of workers' lives. Industrialization incorporated revolutionary ideas in the use of technology and mass production in order to increase efficiency of production.

As new machines and the assembly line reached the factory, work was transformed. Modern technology allowed for workers who performed varied tasks requiring advanced skills to be replaced by workers who performed repetitious tasks requiring less skill. Workers essentially became a cog in the machine, losing much of the independence and freedom they previously enjoyed.

As factories increased the efficiency of production, workers were forced to work at a set pace in order to keep up with the machinery. This new condition of work was found throughout all areas of manufacturing, including the Hershey Chocolate factory. By analyzing excerpts of interviews with two Hershey workers, students will gain insight into changes in work conditions created by mechanization.

**Objectives:** After completing this lesson, students will be able to:

1. Describe how the wrapping of chocolate changed in a ten-year period in the early 1900s, identify reasons for the change, and explain how the change affected the life of the factory worker.
2. Define *oral history*, *assembly line*, and *division of labor*.
3. Recreate mass production of a product using the assembly line and division of labor.
4. Describe life as a worker in the Hershey Chocolate factory.

**Time Required:** 2 class periods

**Materials and Preparation:** You will need copies of Handout 5, as well as materials for student use in creating a product individually and through an assembly line. One possibility is a beaded bracelet, but you may select any product for which you can obtain materials.

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## Procedure

1. Ask students to name some of the sources historians can use to learn about people's lives in the past. If students do not mention interviews, explain that interviews with people that are recorded—either on paper or (more recently) in audio- or videotaped form—are useful sources of information about the past. Further explain that gathering information on past events through interviews with people directly involved in those events is called oral history. Tell students that they are going to be reading transcripts of two oral history interviews to learn about how work changed in the early 1900s.

2. Distribute Handout 5 and ask students to read it individually, or have three students take the roles of the interviewer and the two interviewees and present the interviews to the class.

3. Conduct a discussion of the two interviews, using questions such as:

- ❑ What example does Harry Habecker give of division of labor in the chocolate factory? *Wrapping was done on the first floor. Condensing was done in room #5. Different things happened in different rooms.*
- ❑ Mr. Habecker explains that workers received tokens for work completed. What do you think these tokens were for? How did this change? *The tokens were most likely a form of a receipt that was given when work was turned in. Tokens would be redeemed for wages on payday. Mrs. Mattioli tells of how "we just put it (the finished package) down a chute ... and it would register. That's how we got our piecework." Each finished package was stamped by the person who packed it.*
- ❑ How did the process of wrapping change from the time Mr. Habecker described to the time Mrs. Mattiolli described? Why do you think the process changed? *In Mr. Habecker's time, the wrappers put the two layers of wrapping on the candy themselves. They also did the gluing. In Mrs. Mattiolli's time, they put candy in a machine, which then wrapped the candy. The process was probably changed because the machine could wrap the candy more quickly than the human wrappers. This would allow the company to produce more candy bars and achieve greater profits.*
- ❑ What was the length of the workday for the two workers? What factors may cause the length of the day to differ? *Habecker's workday was ten hours and forty minutes with an hour off for dinner (the noon meal). There was no overtime available. Transportation needs may be one reason why the length of the day differed. Mattioli worked an eight-hour day and needed to leave at two to catch the trolley.*
- ❑ What forms of transportation did the workers take to and from work? *Habecker lived close to the factory and could walk home even at noon. Mattioli lived in Lebanon and took the trolley to work.*
- ❑ Describe what you might see, hear, feel, and smell on the trolley if you rode it home after work in the chocolate factory. *Mattioli complained that the clothing "stank" of cocoa. You might hear people talking about their work or what they planned to do in the evening. You might feel fatigue or happiness that the work day was over.*
- ❑ How does Mattioli describe the atmosphere in the factory while working? *She loved her work and could not wait to go to work in the morning. Talking and joking made work fun.*

4. Tell students that they are going to simulate the differences between individual production and an assembly line with division of labor. Set up stations around the room so that various parts of production are taking place away from each other. Assign students to



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various stations and run the "assembly line" for about 10 minutes. You may want to act as a "foreman," regulating student work. Next, have students work individually to create the same product. Allow 10 minutes for individual production. Conduct a class discussion of which process was more efficient and which type of work was more enjoyable. Draw parallels with the introduction of assembly lines and division of labor in industry.

5. To evaluate student learning, ask students to imagine they are newspaper reporters in 1910. Their editor has asked them to write an article discussing the "who, what, where, why, when, and how" of life as a worker in the Hershey Chocolate factory. Students should write headlines for their articles that highlight what they believe is the most important aspect of working in the chocolate factory.

## Extension/Enrichment

If feasible, arrange for people who work in manufacturing to visit your class. Students should prepare questions in advance that will help them identify changes in manufacturing from the early 1900s to the early 2000s. Students could record and transcribe the interviews to begin creating an oral history archive of their own.



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# Interviews with Workers in the Hershey Chocolate Factory

## An Interview with Harry Habecker

HH: Yes. The first wrapping was done on the first floor. I don't know how I can explain it to you. There was a long hallway — I'll start there. There was a long hallway from the west end to the east end, which was around 600 feet long. Then there were buildings out (unclear). They built the rooms on one side were even, and the other side were the odd numbers.

KK: And what went on in those various rooms?

HH: Well, the farthest east were mostly storage, products like the beans and the almonds. And then number 5 was condensing, the first condensing room. Number 6 was where I started in, and then there was 7, 8, 9, 10 and so on, up to 16.

KK: And different things happened in each room?

HH: Yes. Number 11 and number 12 were wrapping, and the first wrapping machines that they had was installed in number 11 room.

KK: Would you know what year that was?

HH: No, I don't. I don't have any records. It's all up in here.

KK: Oh, I know.

HH: But they were the first wrapping machines installed, Number 11. Number 12 was still hand wrap. The girls had to — there were two to a table, and the tables had a back on it and the shelves. They were back to back. That was number 12. That was all hand wrap.

KK: Was that in two layers of paper like they are now, or just one layer of paper? How did they wrap it?

HH: No, two. Your cellophane, which was sort of a milk white — there was no plastic. And then the maroon wrapper.

KK: The band?

HH: Yes.

KK: That had glue on the back to hold it?

HH: They had to put the glue on.

KK: Yeah. First they wrapped it in the white paper.

HH: They wrapped it in the glazing paper first, and then the maroon wrapper went around that.

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**Sources**:
Interview with Harry Habecker, Hershey Community Archives 89OH55, pp. 8-10.
Interview with Ruth Mattioli, Hershey Community Archives 89OH45, pp. 7-10.

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KK: And they glued that?

HH: Yeah.

KK: How long did it take them to do, do you think?

HH: Well, you should have seen them do that. Now, they were good at it. Twice a day they turned their work in. There was a part of the number 12 had a partitioned off with a wire wheel, I guess you would call it, where the girls turned in their work twice a day. And there was a lady in there, she received it, and then she paid you in aluminum coins.

KK: Tokens?

HH: Tokens, yes. And you keep them from one pay to the next. Now, if you lost them you were out of luck.

KK: How many tokens did you get? Do you know what the scale was?

HH: The tokens amounted to the amount of work that you turned in.

KK: So if you turned in fifty bars, you'd get one with a fifty on it?

HH: Well it was all boxed.

KK: A whole box full?

HH: Already boxed.

KK: It would represent — then you turned —

HH: They kept it, and from there went to the storeroom, in storage, ready for to fill orders and ship.

KK: How long do you think it took them to wrap one bar? A minute?

HH: Well, you know, they were pretty clever at it. The maroon labels came in bundles from their storage. There was one room of buildings where there was no storage. I think that was Number 14 was storage. Later on, the printing presses were in there.

They'd take a handful of those maroon, and they'd shuffle them, so there was just a little bit of each label showing. You'd take the brush that they used to put (unclear), and rub them like that, and they would show just a little bit of the label.

KK: So they'd glue a whole stack at one time?

HH: Then all they had to do was to lay the bar on this and turn it over and they would seal it. And, of course, then they'd box it. See, the girls, after they had their work wrapped, they turned in so many boxes twice a day, once in the forenoon and once in the afternoon at the end of the shift.

KK: That's good. There were several shifts, speaking of shifts? Did they work nights and evenings?

HH: No. I don't think they worked overtime at that time. The fact of the matter is, I don't believe they did.

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KK: Evening work then?

HH: They just worked the straight — well, you worked ten hours and forty minutes, because that was the length of the day.

KK: And how long did you have to eat your dinner?

HH: I believe it was an hour

KK: Did you go home or did you —

HH: I could go home all the time I worked for Hershey. I could make it. See, if I took a shortcut, like you were talking about that bridge, that took me right up the avenue to my home. Now, they couldn't all do that. All the people living there on Trinidad could do that. And I did.

The only time I worked on second shift was when there was a breakdown in the ice machine in the engine room, the great big compressor, (unclear) compressor for cooling. The crankshaft broke one day, and of course there other compressors weren't able to take the load for everyone to work on one shift. So they made my department the second shift.

## An Interview with Ruth Mattioli

RM: Anyway, I worked until '40, and I got married and moved to Lebanon, and at four - thirty in the morning I get the streetcar here at Ninth and Cumberland.

KK: Four thirty?

RM: Four thirty in the morning, because, you see, we had to ring in, I think it was, around twenty minutes to six or quarter of six, because I liked the early shift.

KK: You started at six o'clock, then?

RM: Yes. Six to two. So you had to leave about that time.

KK: What was it like on the trolley then?

RM: Oh, we had a lot of fun. It wasn't like today. We'd sit on there and — but I said at night when we'd go home it was horrible, because it was hot and a lot of those people worked on longitude and latitude. That's where the cocoa is. Oh, that smells so horrible. It stank. It really stank, you know. It got into their clothing, and it was yuck.

KK: It didn't smell like chocolate?

RM: No, not that time. The only time it smelled like chocolate was when the wind was blowing and you come past the factory. It smelled good. But those people, their clothes use to be brown from the cocoa, you know. And cocoa doesn't smell good until you make it anyway.

KK: Did they have trouble getting those clothes clean? Were they supplied for them?

RM: Well, no, they didn't have any problems.

KK: Tell me about how you wrapped, worked on the line there when you were wrapping?

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RM: Well, we had a conveyer belt. It was one big line of machines, and then when you packed, we just put it down a shute, you know, and it would register. That's how we got our piecework. It was an easy job. I loved it. I loved it up there.

KK: A machine was wrapping them and then you were —

RM: Yeah. See, we'd stand up on like a platform, and then we'd stack the candy up high and put it in a — it was like a chain like this, and each pocket you had to fill with a bar. And then they'd come out the back, and you got the point where you could pick up exactly as many bars as was suppose to be in there. We put the lid on, turned it upside down, stamp it. We each had our own stamp. And put it down the conveyer belt.

*Skipped is a section describing Mrs. Mattioli's illness and the fact that she was off work for three months.*

KK: Did you think the work was boring at all?

RM: Oh, no, I loved it. Oh, I loved it. I couldn't wait to go to work the next morning. I just loved it. So then I was off, I think it was around three months, and then I went back and then I was okay.

KK: So tell me what you did on the line to make it fun.

RM: Oh, we use to throw candy bars on the floor, not the whole bar. We use to take when it was broken. Well, you know it would come through sometimes, it was broken in half. And Sam Busherelli, he use to come over and he'd cuss, you know, and carry on and talk Italian. He was funny. He could hardly talk English.

I'd say, "Come on Sam, you love it. You just love it."

And he would talk about other different things, that you can't put on tape, you know. And we'd get a big kick out of this.

KK: So there was lots of joking going on?

RM: Oh, yeah. We were always talking and having a good time. And then, you know, when we fixed your machine or it jammed or you changed the foil. It was silver paper, actually. Sometimes it was a little hard to get down. You had to turn a knob. To turn it, you had to be very careful or it would tear.

Then we had a girl that come through that cleaned the pans out, because we always had a mess in there. And she'd come around, oh, maybe three, four times a day on our shift and clean them out. But we always had a good time, and we always did. The only time we keep quiet was when Lingle was around.



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## Document-Based Lesson 5

# Worker Incentives in the Progressive Era

Daniel P. Duerring
Wyalusing Area School District

### Historical Background

During the late 19th and early 20th centuries, the United States saw fundamental changes in the relationship of the worker and the goods that the worker produced. Gone were the days when the average worker was an independent businessperson creating an item out of raw material and controlling the production from beginning to end and when much of the work was completed at home or in a shop near the home.

The new industrial worker was not a skilled artisan but rather an unskilled or semi-skilled factory assembly line worker guided both by a foreman and the machine that he tended. The new worker did not control production and sometimes knew only his own job without a greater understanding of the entire factory process.

The owners of large factories had little day-to-day contact with the worker. Some lived a great distance from their factories. Their concern with the worker lay in the ability to produce goods and increase profits for the factory owner. Increased competition meant that owners needed to lower the price of goods below that of the competition. One way to keep the price of goods down was to keep the wages of the workers low. The worker was a commodity. In 1910 it was estimated that out of the 38 million men and women working in the non-agricultural labor force, between one-third and one-half lived in poverty.

The Progressives of the period called for reforms that would improve the life of the worker. Some enlightened industrialists responded. Henry Ford's philosophy was that mass-produced automobiles could only be sold if people had the wages for mass consumption, so he increased the wages of his workers. Management also used wages as a form of incentive. Workers would be less inclined to complain and more willing to work if they were receiving higher wages.

Milton S. Hershey, in addition to creating a company town with numerous amenities and a pleasant environment and paying wages that were competitive in the industry, introduced a bonus plan to his employees in 1905. This bonus plan was continued through the year 1919. A later profit-sharing plan was discontinued in favor of a general salary increase.

**Objectives:** After completing this lesson, students will be able to:

1. Place the bonus plan of the Hershey Chocolate Company into a larger context of labor reform.

2. List other forms of incentives offered by companies to their workers.

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3. Explain the use of a company letter as a source of historical evidence.

**Time Required:** 1/2 class period

**Materials and Preparation:** You will need copies of Handouts 6 and 7.

## Procedure

1. Remind students that manufacturers in the Progressive Era were making changes designed to ensure profits. One way to do that was to keep workers' wages low. Point out that in 1910, between one-third and one-half of the 38 million people working in the non-agricultural labor force were living in poverty. Reformers called for higher wages to improve the lives of workers and their families. Some industrialists responded, not always for altruistic reasons. For example, Henry Ford's philosophy was that mass-produced automobiles could only be sold if people had the wages for mass consumption, so he increased the wages of his workers. Management of some companies also used wages as a form of incentive. Workers would be less inclined to complain and more willing to work if they were receiving higher wages.

2. Explain that the Hershey Chocolate Company introduced a bonus plan for its employees in 1905, which was continued through 1919. Distribute Handout 6 and allow time for students to read it. Conduct a discussion using the following questions:

- What is a bonus? *A bonus is an amount of money, over and above a regular wage, that is paid to a worker. It is normally tied either to how well the worker does the job or how much profit the company makes during a specific period of time.*
- How much was Mr. John Snyder's bonus? *$120.00*
- How was the bonus calculated? *It was a percentage of the wages earned for the company over the preceding six months.*
- The letter indicates that the time frame for bonus pay was going to change. How was it going to change? Speculate why this change was being made. *The bonus was paid every six months; this was changing to once a year. There is no indication as to why the system changed, but it may have been to save processing time for bookkeepers or better reflect the company's profit or loss for a longer period of time.*
- Based on the letter, what did the company expect in return from the workers? Do you think the bonus would have the desired effect? *The company expected the worker to keep the new plant neat and clean and to make the newly remodeled factory "the model plant of the chocolate business." Student's opinions about the effectiveness of the technique will vary.*

3. Briefly discuss the use of company documents, such as this letter, as historical evidence. Why are these good sources of information about the past? (*The document was created in the period being studied and reflects company policies at the time.*)

4. Tell students that the Hershey Company introduced another incentive plan in the 1920s. Distribute Handout 7 and allow time for students to read it. Conduct a class discussion focusing on the following questions:

- What employee characteristics determined the amount of money that an individual employee received? *The character of the employment, ability, experience, responsibility and other circumstances of the employment.*


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- ❑ What determined how much the company would give? *Basically it was 25 percent of the money left after expenses (profits).*
- ❑ When would the money be paid? *These payments were to be paid quarterly, as early as could be determined after the end of each quarter of the year.*
- ❑ What advantages would this profit-sharing system have for the employer? *It ensured that the amount paid to employees would not exceed a certain percentage of profits. It also gave employees a vested interest in increasing profits, because higher profits meant their share would be higher. This was not the case with the bonus based on their salaries.*

5. Conduct a concluding discussion regarding students' response to the bonus and profit-sharing plans. Would a bonus cause students to work harder? Why or why not? *Answers will vary. Teachers may wish to discuss current industry profit sharing/bonus plans.*

## Extension/Enrichment:

Encourage students to conduct research on incentives offered by other employers during the Progressive Era. They might also discuss contemporary employee incentives with their parents. What incentives are offered at their work places? What do the employers hope to gain from workers by offering incentives? Do their parents and co-workers think the incentives are effective? What documents do the parents have that describe the incentive programs and that might serve as historical documents to young people studying labor history in 2090? Students might create posters showing the results of their research; the posters could be titled, "Employee Incentives at the Turn of the 20th and 21st Centuries."

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# A Letter from the Hershey Chocolate Company

HERSHEY CHOCOLATE COMPANY

MANUFACTURERS OF CHOCOLATE COCOA

Cable address "HERSHEY"
Codes used "A B C" and "Lieber"

Hershey, Pa. Jan. 18, 1909.

Mr. John E. Snyder,

East King St., Lancaster, Pa.

Dear Sir:-

We are pleased to be able to enclose you as your share of our profits our check for $ [illegible], the amount of which is based on the number of days service in our employ and the amount of wages earned by you during the last six months.

In the future any bonus declared will be paid as soon after January 1st as the closing of our books will permit, and this bonus will be for the year instead of paying the bonus twice a year as heretofore.

All employes who have been continuously employed for the last six months of the year will be eligible to their bonus based of course upon the amount of wages earned during the time in the employ of the company.

We have gone to the very great expense remodeling our factory and making its general appearance much more presentable. This work will now soon be completed and we solicit the co-operation of every one of our employes to keep our factory in the best possible appearance. We want it kept clean and neat in every respect and a little care at all times by all our employes we believe will make our plant the model plant of the chocolate business.

Yours truly,

HERSHEY CHOCOLATE COMPANY.

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Source: Letter from Hershey Chocolate Company to Mr. John E. Snyder, January 18, 1909, Hershey Community Archives, 97004, B3, F4. Snyder was the lawyer for the Hershey Company.


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# Hershey Chocolate Company
# Profit Sharing Plan
# January 1923

Salaries and wages, will, as heretofore, be dependent upon the character of the employment, ability, experience, responsibility and other circumstances of the employment. After the determination of the consolidated net income of the Hershey Chocolate Company and its constituent companies from all their operations within and without the United States, according to its usual method of accounting and after the deduction of all interests and taxes paid or accrued, maintenance and repairs, reservations for depreciation, taxes, and doubtful accounts and all other charges, twenty five percent of the remainder thereof be paid to the officers and employees of the company in proportion to the amounts already paid them as salaries or wages during the period for which the payment was made. These payments will be paid quarterly, as early as can be determined after the end of each quarter period of the year.

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**Source:**

*An Intimate Story of M. S. Hershey*, by Joseph Richard Snavely, Hershey, PA, 1957. According to Snavely, when the first checks were issued on April 15, 1923, they amounted to 27 percent of the amounts already paid as salaries or wages during the first quarter of the year.

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# Case Study of the Role of the Public Sector: The Pennsylvania Department of Labor and Industry

Kenneth Wolensky, Historian
Pennsylvania Historical and Museum Commission

Prior to the Progressive Era, the federal government had a limited role in regulating the activities of business. Federal statutes such as the Interstate Commerce Act of 1887 and the Sherman Anti-Trust Act of 1890 marked the government's early intrusion into the workings of the free enterprise system. Due, in part, to the efforts of reformers, the role of both federal and state governments in the capitalist economy was enhanced during the early 20th century. For example, in 1906 Congress passed laws regulating production of food and medicine and mandating inspection of meat products. In addition, the U.S. Department of Labor was created in 1913 "to foster, promote and develop the welfare of working people, to improve their working conditions, and to enhance their opportunities for profitable employment."

With a federal framework and regulatory program in place, several states followed suit. This essay examines the background leading to the creation of and the role of the Pennsylvania Department of Labor and Industry (PADOL). Created in 1913 as a Progressive Era reform, today the agency employs 5,000 individuals in a variety of programs designed to assist Pennsylvanians, ranging from workers' and unemployment compensation assistance to child labor law enforcement to job placement services. Its origins lay in Pennsylvania's industrial heritage.

## Pennsylvania's Industrial Heritage

During the 19th and early 20th centuries, Pennsylvania became a leading industrial state. Dubbed "titan of industry" and "fat Pennsylvania" due to its abundance of resources, the Keystone State became the focal point of the nation's industrial base. Its wealth of resources included lumber, coal, and oil. According to Pennsylvania historian Sylvester Stevens, former Director of the Pennsylvania Historical and Museum Commission, Pennsylvania grew to industrial prominence between 1870 and 1900, reaching its peak of industrial capacity in these last 30 years of the 19th century. In terms of types of industry, industrial production, and numbers of workers, Pennsylvania ranked second only to New York. The state became a leader in the development of numerous modes of transportation, including railroads and canals. The textile industry in Philadelphia and Pittsburgh grew during the period. Agriculture continued to play a key role as it had prior to industrialization. Lumber was a significant industry, especially in the northern tier and central part of the state. The iron, steel, and coal

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industries were important in bringing Pennsylvania to its industrial prominence.

Indeed coal, steel, and iron were the state's largest industries at the turn of the century, employing well over a million people out of a population of about eight million. These industries produced three billion dollars worth of products by 1900. The mining of Pennsylvania's vast reserves of anthracite and bituminous coal was a major contributor to the industrialization of the United States and employed more than 400,000 people, most of them immigrants from Eastern and Southern Europe and the British Isles. By 1900, steel outpaced coal production as Pennsylvania's leading industry. Pennsylvania produced about one-half of the world's steel in towns such as Steelton, Pittsburgh, Homestead, and Bethlehem. Railroads were prominent as well. By 1880, the Pennsylvania Railroad employed 30,000 employees and had $400,000,000 in capital, making it the world's largest corporation.

## Labor in Pennsylvania

By the latter part of the 19th century, nearly one-third of all Pennsylvania workers were immigrants. The most common occupation of Pennsylvania males was "laborer." Women were, mainly, domestic servants, factory workers, and teachers. Sixty percent of all textile workers in the late 19th century were women and children. When it came to child labor, Pennsylvania led the nation. By 1900, more than 120,000 children younger than age 15 labored in textile mills, glass factories, and the coal industry.

With such a large concentration of industries and workers, organized labor would make inroads in Pennsylvania. In the last quarter of the 19th century, the Noble and Holy Order of the Knights of Labor, headed by Terence V. Powderly of Scranton, was founded in Philadelphia. The American Federation of Labor held its founding convention in Pittsburgh. Several fledging mine workers unions emerged as well, eventually consolidating their organizing efforts into the United Mine Workers of America, which was founded in Columbus, Ohio, in 1890.

The concentration of capital, workers, and organized labor placed Pennsylvania at the crossroads of numerous labor disputes. The Great Railroad Strike of 1877—a national event—could trace much of its roots to the Keystone State, where one bloody confrontation between capital and labor resulted in 20 deaths. A major strike at Andrew Carnegie's Homestead Steelworks in 1892 resulted in 10 deaths. The Anthracite Strike of 1902 represented the lengthiest work stoppage in American history, and a major strike in the steel industry in 1919 led to violence and repression. In most cases the issues in such labor disputes were similar: the struggle for union recognition, better pay, and improved working conditions.

The Lattimer Massacre on September 10, 1897, is perhaps one of the most striking examples of the extent of conflict—and violence—in Pennsylvania's labor wars. In the southern anthracite coalfields near the city of Hazleton, mineworkers for the Wilkes-Barre and Lehigh Coal Company and other smaller companies had numerous grievances with the employers during the summer of 1897. Most of the workers were immigrants, many from Eastern Europe or Italy; many had been in America for only a few years. More than 400 mineworkers marched and publicly protested for several days in August and September denouncing poor wages, high prices at the company store, poor working conditions, and a policy implemented by the Pennsylvania General Assembly that levied a 3 percent payroll tax on every immigrant.

The coal companies banded together and asked Sheriff James Martin of Luzerne County to put an end to the protests. Martin hired and deputized 80 individuals, arming them with Winchester rifles. On September 10, 1897, in the town of Lattimer Mines the deputies opened fire on the workers, despite the fact that they had been marching unarmed behind the American flag. Nineteen were killed, and 36 wounded. The deputies were eventually tried in the Luzerne County Court on charges of murder but were acquitted. No one was ever con-


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victed for what many people felt was a heinous crime.

Child labor posed another more subtle form of violence affecting working class lives. By the 1830s, children as young as eight commonly worked in Pennsylvania's many textile factories. One study confirmed that children who worked outside the home were among the poorest of the poor, driven to labor out of bare necessity. Indeed, industrialization changed the face of child labor. Children who would have worked on the farm or in their parent's artisan shops in an earlier era now worked in increasingly dangerous jobs in the factory or textile mill.

During the late 1830s, Pennsylvania's General Assembly first studied child labor. Legislators discovered that, "In Philadelphia, children in textile mills are summoned by the factory bell before daylight. They have their first skimpy meal at home and come into work at 6:00 in the morning. They continue all day until 8:00 at night, with nothing but a recess of forty-five minutes to get their dinner. Many of them have to travel a mile or more to their jobs and then back home again." Because of the fatigue caused by their daily jobs, at the end of the day many children slept in doorways or in alleys. Common afflictions among children included tuberculosis. Working children often could not read or write, as they had little access to education. Children had few rights and could be whipped for "bad work and inattention" or fired on the spot for doing shabby work.

In public hearings before the Pennsylvania Senate, some factory owners claimed that employing children was "charity." Families were so destitute in places like Philadelphia that children came to the employer looking for work. In some cases, children as young as seven years old were hired. While some employers viewed it as charity, others felt child labor was wrong.

Ten years later, in 1849, the General Assembly passed the state's first child labor law, the beginning of what would become a state system to regulate child labor. The workday for children was limited to 10 hours and the total amount of hours that could be worked in any week to 60. Yet growing industries provided more avenues for child labor. By the 1870s, coal mining provided another source of work for children. Young boys sorted coal from rock in large coal collieries or worked as "door tenders" and "mule drivers" in Pennsylvania's coal mines. The work was dangerous; death and injuries were common. Cuts, broken or crushed fingers and limbs, and fatigue were routine. Inhaled coal dust led to breathing problems later in life, often culminating in the dreaded disease known as "black lung."

By 1900, more than 60,000 children under the age of 16 worked in mining and manufacturing. The General Assembly found that 17,000 girls worked in silk, textile, garment, and other manufacturing establishments alone. In total, more than 120,000 children worked in Pennsylvania industries. Child labor precipitated public outcry during the Progressive Era.

Opposition to child labor came from social reformers, unions, and "muckrakers," such as Ida Tarbell. Even capital, on occasion, expressed opposition to the growing phenomenon; the president of the Pennsylvania Railroad and the owners of a few coal companies spoke out against the employ of children. Civic organizations in places like Philadelphia and Pittsburgh opposed it as well. Many of these diverse interests lobbied the General Assembly to end child labor. Their early success included a 1903 law that prohibited boys younger than age 18 from working in the mines. This law was passed despite opposition by the coal industry, which argued that the state government should not become involved in the operations of the private marketplace.

## The Birth of the Department of Labor and Industry

The job of enforcement of child labor statutes was first given to the state Office of Factory Inspection. Created in the 1880s, the Office of Factory Inspection was charged with inspecting and reviewing working conditions in various industrial establishments

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in Pennsylvania. Twenty deputy factory inspectors reported to a chief factory inspector, who issued reports to the Governor and General Assembly on industrial conditions in the state. The Office of Factory Inspection recorded blatant violations of the child labor law as well as death, injury, and otherwise abhorrent conditions in Pennsylvania industries. Inspecting industrial establishments and enforcing child labor statutes was, in the view of some state legislators and reformers, too big a job for the Office of Factory Inspection. Likewise, tracking statistics on such topics as industrial output and employment—a job relegated to the Bureau of Industrial Statistics in the late 19th century—had placed additional demands on limited state government resources.

As a result, Pennsylvania's General Assembly, with the support of the Governor's Office, created the Department of Labor and Industry in 1913. While regulating and enforcing child labor law was among its first major tasks, other Progressive Era legislative reforms would also become the responsibility of the Department of Labor and Industry. These included:

- ***1913***: The Report of Accidents Law required employers to report industrial or workplace accidents to the Department.
- ***1913:*** The Bureau of Mediation was created to assert itself in disputes between employers and employees to avoid incidents like Lattimer, Homestead, and the Great Railroad Strike. Employers and employees could file formal complaints with the Bureau. Both sides could go before a neutral party who would make recommendations to settle the dispute.
- ***1913:*** Collection of industrial and employment data through the Bureau of Statistics was begun.
- ***1913:*** The type of filler put into mattresses was regulated to avoid and prevent fires.
- ***1915:*** Worker's Compensation Act established a Worker's Compensation Fund by taxing both employees and employers.
- ***1918:*** Bureau of Employment Security was created to help people find work and match the needs of employers with the skill-level of employees.
- ***1919:*** Office of Vocational Rehabilitation was created to help injured World War I veterans find employment.

In 1915 Pennsylvania's General Assembly enacted its most sweeping child labor law. It established the minimum working age at 14, providing that the child had completed the sixth grade. Night work, between 9:00 PM and 6:00 AM, was forbidden. Work in hazardous industries such as mining or in some sectors of glass manufacturing was outlawed. (One year later, the federal government prohibited the interstate shipment of goods manufactured by children. In 1919, however, this prohibition was declared unconstitutional by the Supreme Court.)

In summary, the basic responsibilities of Pennsylvania's Department of Labor and Industry were a direct outgrowth of the rise of industry and labor in Pennsylvania as well as Progressive Era reforms.

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# Government and Child Labor

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## Historical Background

By the beginning of the 20th century, American business was growing at a rapid rate. The American economy's unprecedented growth rate made a comfortable standard of living potentially available to all Americans. During this period, the average per capita income of Americans led that of all other nations.

This potential was in stark contrast to reality, however, with large segments of the population remaining near or below the poverty level. In 1904, an estimated ten million persons in the United States were living in poverty (out of a population of a little over 76 million as listed in the 1900 census). These people were underfed, underclothed, and poorly housed. Industrial accidents were common, and conditions of work were often unhealthy. Normally, the worker had to suffer disaster alone. There was no social insurance against accident, illness, or unemployment.

It was this contrast between potential and reality that led to the reforms later to be known as the Progressive Movement. While people individually worked for reform, many Americans felt that the only way to fight the big companies was with another big institution—the government. In 1901, President Theodore Roosevelt, as part of his Square Deal legislation, asked for the creation of a cabinet-level Department of Commerce and Labor empowered to gather and release information about industry so that social legislation could be designed to help the American worker. While originally opposed by conservative Republicans, the law passed Congress with overwhelming popular support.

State governments also created agencies to protect workers. In Pennsylvania, the Office of Factory Inspection was created in 1889 to monitor the safety of industries and check for violations of the child labor law, two outgrowths of the Progressive Era. In this lesson, students read part of a 1904 report from that office to learn more about the child labor problem and government's role in addressing it.

**Objective:** After completing this lesson, students will be able to:

1. Explain the purpose of social legislation passed during the period.

2. Describe the impact of child labor laws from the perspective of the child, family, employer, and government.

3. Explain the role that government plays in labor relations and the balancing act that must exist between protecting worker's rights and advancing the needs of business.

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**Time Required:** 1 class period

**Materials and Preparation:** You will need copies of Handout 8.

## Procedure

1. Ask students if they hold a summer or after-school job. How many hours a week do they work? How late at night do they work? Are the rules the same during the summer as during the school year? Do the rules change depending on their age? What paperwork needed to be completed before they could work? Who was the paperwork filed with? Why are these regulations in place?

2. Explain that the laws that govern students' work are an outgrowth of the Progressive Era, when child labor began to be seen as a problem. As with other problems of the time, people turned to government for a solution. Big government was seen as the only way to deal with problems created by huge corporations. New laws were passed, and new government agencies were created to regulate business and labor. One such agency was the Office of Factory Inspection for the state of Pennsylvania.

3. Distribute Handout 8 and explain that the document is one section of a report submitted by the Factory Inspector to the governor of Pennsylvania in 1904. Allow time for students to read the handout, or read it aloud with the class. Use the following questions to conduct a class discussion on the reading:

- What percentage of the employed population was under the age of sixteen? *In round figures, 6 percent of all employees were children.*
- What was the earliest that a child could be employed? *The earliest that a child could be employed was age 13.*
- What conditions had to be met? *Children could be employed provided the requirements of the law related to affidavit and certification were complied with. One item specifically listed was that the child had to be able to read and write.*
- What happened if the conditions were not met? *If the conditions were not met, the child had to be dismissed (fired).*
- According to the factory inspector, why was there a general belief that factories and mercantile establishments were "literally crowded" with children under the age of 13? *The factory inspector stated that often the children working looked underage because of their physical deterioration. This may have been caused by employment or from other factors.*
- The article mentions "persons having no official connection to the Department." What conclusions did the author draw about these individuals and their efforts? *They added to the official force of the Department by reporting suspected violations. The report mentioned that they were zealous in their efforts to reduce the numbers of children employees, an indication that pressure groups during the Progressive Era thought that this was a good idea. The report also concluded that the efforts forced the Department to look at the issue and concluded that they were wrong in their allegation.*
- Was the general belief correct? *The article concluded that the belief is not correct. While some children may have been missed, comparatively few children under the age of 13 were employed in establishments over which the Department had jurisdiction.*



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- ❑ The report concluded that the demand for child labor would increase. Why? *The increased use of mechanical devices decreased the need for skilled labor. Parental pressure, poverty, and the desire of children to work would increase the numbers.*
- ❑ The report drew a conclusion concerning genders. What was it? *Females were just as likely to be employed as males.*
- ❑ What recommendations did the report make? Do you agree with the recommendations? What other recommendations might you make?

  1. *The age limit be raised from 13 years to 14.*
  2. *Better proof of age than the oath of parents be required.*
  3. *Children should be physically able to perform the labor incident to the occupation in which they intended to engage.*

When students have discussed recommendations they might make, you may want to point out that by 1913, the Pennsylvania General Assembly had decided that inspecting factories and enforcing child labor laws was too big a job for the Office Of Factory Inspection and had created a new Department of Labor and Industry, an agency that assumed responsibility for implementing a number of Progressive Era reforms, including tracking workplace accidents, mediating disputes between employers and workers, regulating safety of products, and administering the Worker's Compensation Fund.

4. Conclude by conducting a general discussion of the conflicting values that the government must consider when deciding whether to pass laws regulating child labor (and other labor practices). How would students weigh such factors as the safety and health of the worker, the financial needs of families, and the interests of business in deciding whether to pass legislation protecting workers?

## Extension/Enrichment

Have students investigate current legislation concerning child labor. Has child labor increased as the article predicted? How is child labor administered in your state? How does a minor become certified to work? What pressures now create a demand for child labor?

Encourage students to examine other examples of protective legislation in your state and debate the merits of such laws. If possible, have students determine whether they can trace the history of this legislation to the Progressive Era.

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# Annual Report of the Factory Inspector of the State of Pennsylvania, 1904

## Child Labor

Of the total of employes, 718,899, employed in the 16,589 establishments inspected, there were 41,140 children between the ages of 13 and 16 years, 21,117 of whom are boys and 20,023 are girls. In round numbers, six per cent of all employes were found to be children under the age of sixteen years. The law permitted the employment of children who had arrived at the age of thirteen years provided the requirements of the law relative to affidavit and certificate were complied with.

The deputy factory inspectors were urgently reminded of their duties respecting the employment of children, and it was demanded of them that they should make searching and rigid examination as to the number of children employed and the legality of their employment. Because of a duty enjoined upon the Department, and for the purpose of substantiating or of disproving oft-repeated allegations to the effect that, the factories, workshops and mercantile establishments in Pennsylvania were "literally crowded" with children under the age of thirteen years, a special effort was made to thoroughly investigate the conditions, legal and otherwise, under which children were employed.

As a result of this effort, 2,956 children were found to be employed who had not been provided with employment certificates, and whose employers had not affidavits on file respecting the age of said children. In nearly every instance where children were thus employed contrary to law, certificates could have been obtained, the children, as to age and educational requirements, being fully entitled to the same. Not having obtained the certificates, however, they were summarily dismissed by the deputy inspectors.

In the matter of illiteracy, but 107 children were found who were unable to read and write the English language, all of whom were dismissed. In this connection it can be said, truly, that children had been coached by their parents to write their names, and in some instances, to read the heading of the employment certificate, and the ability to do both being the usual test submitted by aldermen, justices of the peace and notaries when issuing employment certificates, the fraud went undetected until the deputy factory inspectors applied a more rigorous test. There were instances, too, when the officials who issued employment certificates did not examine a child as to its ability to read, assuming that a child who could write its name could read.

Even assuming incompetence on the part of some of the deputy factory inspectors, and negligence on the part of some others, the returns disprove the assertion that the factories, workshops and mercantile establishments are "literally crowded" with children under the age of thirteen years. There are many children employed in gainful occupations who, because of their physical deterioration as a result of this employment, or for physical deficiencies the result of other causes, appear to be of an age less than thirteen. To the superficial observer or to the person whose mission it may be to substantiate the soundness of a theory by a system of fallacious guessing such children must be under thirteen years of age. To this Department, however, all employed children within the scope of its jurisdiction are presumed to be legally employed until the contrary is shown. This attitude does not prejudge the employers neither does it permit of or encourage any violation of the law, as the presumption that children are legally employed must in all cases be sustained by such

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Source: *Annual Reports of the Factory Inspector, 1899-1911*, Pennsylvania State Archives.


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proofs as the law demands. Of the total of illegally employed children, 3,243, but 180 were under the required age of thirteen years, and of this number, 55, nearly one-third, were found in the glass factories of Westmoreland County. That there were other children under the age of thirteen years who escaped detection may fairly be assumed. When it is remembered, however, that from all parts of the Commonwealth, persons having no official connection with this Department, but who are zealous in their efforts to reduce the number of children employes, report anonymously and otherwise to the Department supposed violations of the law regulating the employment of children, surely the work of these volunteer auxiliaries added to that of the official force of this Department should be sufficient in its results not only to disprove the allegation aforesaid relative to the employment of children under the required age, but to demonstrate, on the contrary, that comparatively few children under the age limit of thirteen years, are employed in establishments over which this Department has jurisdiction.

The constantly increasing number of mechanical devices, some of them with automatic action almost human in the display of intelligence and more than human in the capacity for production, are inevitably bound to decrease the demand for adult operatives in many gainful occupations.

Because little if any skill will be required to operate these devices, and the desire on the part of the employers to obtain the maximum of production at the minimum of cost, the demand for child labor will increase as the necessity for adult labor decreases. The cupidity of some parents, the poverty of others and the ready enthusiasm with which the average boy or girl will enlist in the army of wage earners will be important aids in the transition from adult to child labor.

One of the most alarming and pathetic features in this transition from adult to child labor is the total ignoring of sex conditions and differences in the employment of children. In the report of this Department for 1903, it was shown that in a total of 647,427 employes, there were 32,758 children of which number 17,018 were males and 15,740 were females, a difference of only 1,278 in the sexes. For the past year, of the 41,117 children in a total of 718,880 employes, 21,117 were males and 20,023 were females, a difference of only 1,094 in the sexes.

The economic conditions which have produced, and which, in the future, will multiply the child operative, is beyond the control of this Department, and may be above the wisdom and foresight of man to change. But recognizing the all-powerful force and the inevitable tendency of business competition to lessen the cost of production in all possible ways, the boy who, is said to be "the father of the man," and the girl who, in the design of Providence, is to become the mother, should have legislative protection.

It is respectfully recommended, therefore, that the age limit for children employes be raised from thirteen years to fourteen, that other and better proof of age than the oath of parents be required, and that children should be physically able to perform the labor incident to the occupation in which they intend to engage. To further this recommendation a bill has been prepared by the Department which will be submitted to your Excellency and to the honorable members of the Senate and House of Representatives for approval.



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Essay

# The Environment and Progressive Era Industry

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Industrialization and poor sanitation gave rise to the country's first large-scale environmental crisis, one that affected air, water, and soil in both urban and rural locations, resulting in severe public health problems and degraded landscapes. This essay opens with a brief overview of the pollution problem, its causes, and approaches that were used to address it. It then looks in greater depth at water pollution, solid waste, air pollution, and land reclamation, focusing particularly on examples in Pennsylvania, New Jersey, and New York.

## Overview of the Problem

Every major industry contributed its share to the pollution problem. The leather tanning, textile, and other industries used rivers as open sewers. The increase in scale of these industries after the Civil War wiped out the fishing industry along east coast rivers, along with nearly all recreational usage.

Cities where bituminous coal was burned as a fuel source were filled with dust and smog. The mining industry left huge open pits in the ground and waste piles above ground. In but a few decades, the logging industry clear-cut the woods of Pennsylvania, Michigan, Wisconsin, and Minnesota, clearing timber at a rate that exceeds what is occurring today in Brazil. The lead smelting, meat packing, and oil drilling industries were major pollution contributors.

Even landscapes considered hallowed for their scenic value were under pressure from industrial development. The American side of Niagara Falls, higher in elevation than the Canadian side, was in serious threat of being entirely diverted for hydroelectric power production.

Industry, however, was not the sole source of pollution. The largest single source of water pollution was actually human waste and sewage from residences, accounting for as much as 60 percent of the water pollution stream. By the 1880s sewage was known to be the carrier of germs and bacteria that caused a range of diseases, most significantly typhoid.

Pollution had immediate and measurable health and social costs. In the late 19th century, life expectancy rates were dropping while infant mortality rates were rising. In New York City, for example, infant mortality rates increased by two-thirds between 1800 and 1900. At the end of the 19th century in Washington, DC, 31 of every 100 babies died before the age of one. Death rates were highest among poor immigrants and the working class who, for the most part, lived closest to the sources of pollutants. Yet even the well off could not completely insulate themselves against things like smoke-in-



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duced asthma or diseases contracted from the water supply.

The public response to pollution was initially focused on diseases transmitted through the water supply. Since these diseases did not directly involve industry, industry was not an initial target, though a few exceptionally toxic exceptions were identified, including cyanide from paper mills and phenol from coke plants.

On the occasions when an industry was targeted, public policy favored technological and engineering fixes rather than responses requiring a change in business practices. Legislation, litigation, and punishment of offenders were seldom employed. Engineers and scientists emerged during the period as a new class of expert, but without the ability to fine or close a plant, their advice was often ignored. This is not to diminish what the progressive reformers were able to accomplish; this was, after all, an era of powerful industrial monopolies.

In general, personal hygiene campaigns and cosmetic improvements were favored over approaches that addressed root causes. If children were swimming in the East River, for example, the solution was to educate them about the danger rather than to clean the river. Cleanup campaigns focused on streets, backyards, vacant lots, and alleys rather than on pollution sources. Major campaigns against flies and mosquitoes can be viewed in the same light.

## Water Pollution

The first major environmental issue that a city typically confronted was providing a clean water supply. Traditionally, water came from wells, either private wells in back yards or community wells that served an entire block. These wells were easily contaminated. Philadelphia was the first city in the United States to come up with an alternative to well water when, around 1800, a Philadelphia company began piping water from the Schuykill River. This private venture was never really profitable; only people who could afford to pay a lot of money for a water supply were able to subscribe. As a result, by the 1820s, the Philadelphia water system was taken over by the city. The city built a new waterworks in Fairmount Park, and Schuylkill River water supplied Philadelphia's entire population of about 70,000. Philadelphia became one of the healthiest cities in the world after this plant went on line.

By the 1890s, however, the Schuylkill, along with many of the rivers along the eastern seaboard, was polluted. Philadelphia was more than ten times larger than it had been when public water was introduced, and industries had developed for miles upstream of the water intakes. Despite the obvious degradation in water quality, people were not wholly convinced of the problem. Many believed that wastewater was self-purifying through dilution, evaporation, and chemical reactions with itself.

The traditional system for human waste disposal was the outhouse or privy, a hole dug in the back lot. Sewage in the privy tended to leech into the groundwater, which is how wells became contaminated so easily. But at least the privy was a self-contained system. At worst, only nearby wells were contaminated; this contamination could be minimized if the privy vaults were pumped out periodically.

Running water and a new invention called the water closet changed the situation. This system was more sanitary but water-intensive. Privies were incapable of handling the excess water. The solution was to build a sewer line, which routed wastewater into underground pipes that carried it downhill to the nearest stream. In many cases, this stream was a source of drinking water. As a result, diseases like cholera, dysentery, and typhoid skyrocketed.

Cities were faced with two choices—clean up the water supply or get their water from somewhere else. Newark, New Jersey, chose the latter option. Newark traditionally had obtained its water from the Passaic River, which in the span of a quarter century had gone from the subject of romantic landscape paintings to a fetid, open sewer.


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One of the principal industries in Newark was brewing. Brewers require large supplies of pure, clean water to make beer, but they also need a large sink to dump yeasty wastewater products. As a result, brewers strongly favored the option of a distant water supply. Another industry that was dominant in Newark was the leather tanning industry, which also requires a lot of clean water and produces a lot of heavily polluted waste water. Tanners joined the brewers in agitating for a distant water source.

Newark also had to contend with the pollution of upstream towns like Paterson. Paterson had grown from a small village at the time of the Civil War to a city of about 70,000 by 1890. This rapid growth saw not only an increase in sewage dumped into the river but also an enormous growth of factories. According to a contemporary report, "there were cotton mills and woolen factories, great locomotive works, a jute mill, silk and silk dyeing establishments, and other factories all pouring millions of gallons of brilliantly colored and poisonous dyes into the Passaic River." Hat factories put heavy metals like arsenic, sulfuric acid, and lye into the water, and oil tanks leaked into the river.

Newark thus decided to bring its water in from somewhere else—an ideal solution from industry's standpoint. Industry did not have to change what they were doing. In fact, they had even less incentive to control their own pollution. Newark chose a site at the very northern extreme of New Jersey, built a dam to create a reservoir, and then piped the water into the city. This was considered a successful progressive idea.

In contrast to Newark, Philadelphia, after several decades of stonewalling and political infighting, decided to treat its water, continuing to get it locally from the Schuylkill. Philadelphia first built interceptor sewers that took sewage upstream of the water intakes and diverted it around the water intakes, discharging it downstream. That technique reduced pollution somewhat, but disease rates were unaffected. The next thing the city tried was building sedimentation reservoirs. It was believed that, after the water sat for several days, contaminants and bacteria would settle out through gravity. This was true to a limited degree, as death rates declined slightly.

Philadelphia eventually tried building filtration plants, the first of which went online in 1903. After the water sat in the sedimentation reservoirs, it was passed through a bed of sand several feet thick. The contaminants, germs, and particles adhered to the sand, and the water that passed through was clean. The filtration plants resulted in a substantial drop in the death rate.

Typhoid did not disappear completely, however, until the innovation of chlorination, the addition of chlorine to the water after filtration. Chlorine killed just about every germ remaining in the water. Jersey City was the first to use chlorination, and Philadelphia quickly followed. By 1915, typhoid was a disease of the past.

## Solid Waste

Like the water pollution problem, issues surrounding garbage and solid waste disposal were primarily urban. In rural areas, garbage could be carted to the edge of a property or the town dump, but in the city there was too much garbage and not enough places to put it.

One of the main contributors was the horse, the principal mode of transportation of the time. A typical horse produced fifteen pounds of manure a day. New York City had 120,000 horses in 1900. Mortality rates for horses were high. Horses were susceptible to the same diseases as people and lived in the same contaminated conditions. Overworked horses that died on the job were left in the street. There was no private mechanism for removing horse carcasses or horse manure from city streets—there was not enough profit in it.

Household trash, newspapers, and manufactured items like bottles and cans

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were also a problem. Food waste and ashes from industrial operations and from home stoves added to the accumulation of solid waste.

As with water pollution, the prevailing notion was that science would find some way to solve the solid waste problem. The traditional solution for handling solid waste was to hire sanitation workers, give them brooms and carts, and have them take their loaded carts to the river and dump them onto waiting barges, which would then be towed out into the ocean. The towing was done when the tide was going out so everything would be carried away; when the tide came in, however, refuse would inevitably wash ashore. Even those wealthy enough to escape the stench of the city during the summer months still had city trash follow them to their private ocean cottages.

New York City, the biggest American city, had the most garbage and the most pressing need to do something about it. Its solution became the progressive model for how to handle solid waste. Colonel George Waring, a Civil War veteran, was put in charge of the New York City Sanitation Department. Waring instituted a military approach, complete with white uniforms; sanitation workers marched in parades to convey a positive public image. His workers were issued better equipment, including small wheeled push carts. He also hired many more workers. Waring automated the barge loading so workers no longer had to shovel garbage onto the barges; instead, they dumped it onto a conveyor belt. Barge offloading was also automated; barges mechanically tipped to dump the garbage into the ocean.

Waring realized that even garbage had a market value. The city set up a system that allowed people to pay a small fee to pick through the trash for resale. Animal carcasses could be made into glue or used as landfill. Garbage could be turned into fertilizer and a perfume base, for which there was a small export market.

Sorting the garbage after it was all mixed together was expensive. If it were separated at the source, the city could realize greater revenue. The city therefore enforced the separation of garbage into different bins. Ashes had to go in a can, garbage in another can, trash in a third can. Recycling, rather than being a recent concept, was an innovation of the 1890s.

Different city crews picked up these different cans on different days. Garbage was taken to the south edge of Brooklyn, where the big fertilizer plants were located. Hydraulic presses squeezed liquid from the garbage; the solid material that was left was put through a chemical process to make fertilizer. Ashes were used as landfill to create Riker's Island, the site of New York City's prison. Workers piled up the ashes and hosed them into the water. Over time, this built up land that provided space to expand the prison.

The biggest refuse problem was the manure left by the horses, which explains in part the public's eagerness to embrace automobiles. By 1910, the New York City Department of Sanitation, along with much of the rest of America, used motorized vehicles. Of course, people did not foresee the problems with automobile exhaust, and the transition to automobiles became a classic example of substituting one kind of pollution problem for another.

## Air Pollution

Concern about air pollution ran a distant third behind water and solid waste, because people saw air pollution as a nuisance rather than something that could kill you. This viewpoint would hold until 1948, when more than twenty people died in Donora, Pennsylvania, as a result of zinc-laden air being trapped in the river valley for an extended period.

One of the first areas hit with a major smoke problem was a rural area, the coke district anchored by Connellsville in southwestern Pennsylvania. This region offered the best coal for making coke in the nation, and beehive ovens popped up all over the landscape, wherever the coal happened to


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be. Coal was loaded into the oven from the top, packed tightly, and baked for a few days. In the process, 30 percent of the mass was burned off as sulfur-laden smoke. The sulfur was then returned to the earth's surface in the form of sulfuric acid rain. Before coke production, the area had been an agricultural region, but farmers found that the pollution impeded crop growth.

Farmers occasionally took their grievances to court but always lost, since it was not legal to sue an industry collectively. The specific creator of the nuisance could be sued, but establishing which particular beehive ovens were stunting the crops in a particular field was impossible. Courts also compared the value added to the economy by the two parties and decided in favor of the coke industry.

In Pennsylvania, cheap coal was so abundant and the coke of such high quality that there was little incentive to do anything about the 30 percent being lost in the exhaust. In Europe, on the other hand, coal was not as plentiful, cheap, or high quality. Europeans, particularly in the Ruhr Valley of Germany, had economic incentive to try to capture the smoke, which led to their innovation of the byproduct oven. The heat from the smoke was used as a source of power in adjacent factories, and the solids in the smoke were captured and distilled into such useful products as coal tar, creosote, carbolic acid and ingredients used in dyes, perfumes, medicines, antiseptics, paving material, and fuel.

Americans did not manufacture any of these products; using the beehive system and importing the byproducts from Germany was cheaper until World War I closed the German market to Americans. American coke plants began distilling their smoke to produce the needed byproducts, which resulted in an immediate and severe degradation in water quality. The wastewater produced in the distillation process was so noxious that, after 1914, western Pennsylvania had some of the worst water quality in the country.

This change affected the water supply for the city of McKeesport, to cite one example. In 1915, McKeesport built a new waterworks to obtain water from the Monongahela River, including a modern filtration and chlorination plant. Three months after opening this water works, U.S. Steel opened the country's largest byproduct coke plant upriver in Clairton, dumping their foul byproduct wastewater almost straight into the McKeesport water intake. One of the byproduct chemicals, phenol, is reactive with chlorine and made the water taste like oil, making the water from the new water plant completely undrinkable. The water tasted so bad that some of the citizens of McKeesport started unplugging their traditional backyard wells. The city of McKeesport took U.S. Steel to court and won in a landmark case. The company could no longer dump its wastewater into the river. Instead, they elected to use it to quench the fires in the ovens, a more complex and costly alternative. The court's ruling was an early example of the type of industrial regulation that would become widespread by the 1960s.

## Land Reclamation

The last major environmental issue of the Progressive Era was public land reclamation, the idea that the government should reclaim land or regulate land use in the name of stewardship. Most histories of land reclamation focus on the western United States and the establishment of national parks at Yosemite and Yellowstone, but the movement also touched Pennsylvania, New York, and New Jersey. Passing legislation in the east was more difficult, though, because there was little publicly owned land to begin with.

One-sixth of Pennsylvania was still virgin forest at the end of the Civil War. This forest was completely gone by 1920, all of it clear-cut, excepting a few small patches missed by happenstance. Clear-cutting results in soil erosion, as rainfall washes the newly unprotected soil into the nearest waterway. The streams in the upper Susquehanna River basin were all transformed

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from clear to muddy in the second half of the 19th century.

Early on, there was a sense that this was a serious problem that demanded a remedy. The botanical community, biologists, and various natural scientists were joined by sportsmen's associations, who wanted to maintain land where they could hunt and fish. Women's clubs were also significantly involved. In the 1870s, a journal called *Forest Leaves*, edited by Joseph Rothrock (who eventually became the first Pennsylvania Forester), started to document the status of the vanishing eastern forests.

The solution eventually advocated by Rothrock and his journal was for the state to acquire land and create a state forest system. The state would be the steward of this land, harvesting timber in a sustainable fashion. This idea was radical because owning land was not perceived to be the business of the state. For decades, bills introduced in the legislature died in committee. Even if a bill passed the General Assembly, the assumption was that it would fail a constitutional test.

In 1897 a bill passed that allowed the state to purchase any land which had no salable timber, which had no one living on it, and for which no taxes had been paid for at least two years. There was a lot of such land; land owned by timber companies who incorporated, clear-cut, and then disincorporated. This land had no rightful owner, and no taxes were being paid.

The land was to be purchased at Sheriff's sale; if there were any other bidders, the state would have to withdraw its bid. Even with these restrictions, there was so much unwanted land in Pennsylvania that the state was able to make purchases. Sproul State Forest, in Clinton County near Lock Haven, became the first place where the state purchased land in this manner. As time went on, the procedure eventually became easier, allowing the state to make direct purchases from sellers. The state park system was spun off from the state forest system in the 1920s.

Niagara Falls was another example of government activism in a traditionally unfamiliar realm. The state of New York was selling hydraulic power rights to different water companies in the Niagara River. If everyone exercised their full rights, enough water would have been diverted to leave the American side of the falls dry. In 1913, the federal government negotiated a treaty with Canada, limiting the amount of water that could be diverted from the Niagara. The diverted amount was still significant, but not enough to dry up the falls. The federal government was making inroads into stewardship.

## For Further Reading


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## Document-Based Lesson 7

# Hershey and Clean-Up Day

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### Historical Background

The early history of America was a period of environmental neglect. Rivers became open sewers while open pit mines and clear-cut forests destroyed the natural beauty of the land.

During the Progressive Era, Americans became concerned that water, forests, minerals, and soils would be depleted. Dams were constructed to conserve water, and a national park system was created. Americans were becoming more environmentally responsible.

One way that the citizens of a small town like Hershey could show their increased environmental responsibility was by participating in a national clean-up day held April 10, 1915. On this day, towns all over the nation were to eradicate flies and generally clean up their environment.

**Objectives:** After completing this lesson, students will be able to:

1. Describe some environmental problems in the Progressive Era, as well as approaches to solving those problems.

2. Explain the relationship between pollution and disease and describe measures communities took to eradicate flies.

3. Explain how a national movement can become localized using Hershey "Clean Up Day" as an example.

**Time Required:** 1-2 class periods

**Materials and Preparation:** You will need copies of Handout 9. You may want to prepare a brief lecture based on the material in the preceding essay; if students' reading skills allow, you may copy the essay for them to read.

### Procedure

1. Introduce the topic of pollution in the Progressive Era. You may want to present this information in a mini-lecture based on the essay, "The Environment and Progressive Era Industry." If students are able readers, they may read the essay as an alternative. In either case, be sure to discuss the approaches used to deal with pollution problems. What are some reasons people might focus on "hygiene campaigns and cosmetic improvements"? (*Possible answers might include because they were afraid of taking on large companies, the gov-*

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*ernment had not yet taken on a great role in regulating industrial activities, and clean-up activities let people feel they could solve problems for themselves.*) Focus also on the connection between pollution and disease, making sure that students understand that flies carried germs that caused disease and were thus a frequent target of clean-up efforts.

2. Explain that students are going to read four newpaper articles that deal with one town's efforts to clean-up their environment. Distribute Handout 9 and have students read the articles individually or in small groups. Use the following questions to prompt class discussion of the articles:

- What do the articles say should be done with all flies found? Why was it important to do this in April? *These are the mother flies that would lay the millions of new eggs. Each mother fly would produce 625 eggs. If you could eliminate the mother fly before April, you would lessen the problem in the future.*
- Where were eggs found? *They were found in horse manure, rotting vegetables, and especially in pigsties.*
- What could be done with garbage and manure to lessen the impact of flies? *Both manure and garbage could be cleaned up and hauled away if possible. If it could not be removed, manure could be treated with borax to prevent the eggs from hatching and be kept in a sealed container. Garbage should be kept in a sealed, clean container. Fly traps could be set.*
- What were some specific steps taken in Hershey on Clean-Up Day? *The citizens of Hershey looked for flies and made a point to clean up problem areas, distributed literature to homes, organized a fly swatting contest among children, distributed fly traps to homes, removed garbage and rubbish, and increased the number of times a week that garbage and rubbish were removed*
- Who organized the clean-up day in Hershey? Is there evidence that government or industry was involved? *The Men's Club organized the clean-up campaign. Milton Hershey attended at least one meeting; we do not have evidence to say whether other industrialists were involved. There is no evidence of government's involvement.*
- Was the day a success? *According to the April 15 article, it was a success. Being a new community, Hershey was easier to clean than most.*
- How did the writer of the April 15 and 21 articles try to encourage people to keep Hershey clean? *The April 15 article suggests Hershey's reputation for cleanliness creates pressure to keep the town clean; it urges readers to get women and children involved. The April 21 article stresses that the clean-up must not be seen as a one-day campaign but an ongoing fight.*
- How is the newspaper's coverage of the clean-up different from the way in which local events are covered in newspapers today? *The newspaper's article urges citizens to get involved; newspapers today would probably not do that in a news article but might do so in an editorial. The newspaper provides more details about the meetings than newspapers today probably would. The newspaper seems to be addressed primarily to men, as women and children are mentioned as groups to be encouraged by readers. That would not be the case today.*

3. Discuss with students how Hershey's Clean-Up Day represented the national preference for "hygiene campaigns and cosmetic improvements." Assign students to write a one-page essay on environmental concerns of the Progressive Era, drawing on the information about Hershey's Clean-Up Day and the lesson-opening lecture/reading. As an alternative,


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students might create posters designed to encourage participation in Hershey's Clean-Up Day. Their posters should illustrate why the effort was important and how it addressed an environmental concern.

## Extension/Enrichment

Have students look for evidence of the various ways in which environmental problems are addressed today. They should consider various groups that take action (individuals or groups of concerned individuals, such as the Chesapeake Bay Foundation or Sierra Club, governmental agencies, industry), as well as the types of action taken (hygiene campaigns and cosmetic improvements, regulation of industry, technological or engineering "fixes"). Based on the information gathered, how do students think the emphasis has shifted in terms of the way in which we deal with environmental problems. (*There is now more emphasis on governmental regulation and responsibility, although individuals do still take action; technological or engineering "fixes" for pollution problems are still sought.*)



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# Clean-Up Day in Hershey: Articles from *The Hershey Press*

*The Hershey Press*,
April 1, 1915

## Fly Campaign Committee Pressing the Good Work

**Overwinter Insects Are Being Killed and the People of Hershey and Derry Are Taking Great Interest in the Clean-up Day on April 10. Instructions**

The Fly Campaign Committee held a meeting last night at the Men's Club. There was a good attendance and the reports from the various committees showed that the fight has been taken up earnestly and that the people are showing every disposition to cooperate in the work.

Arrangements for Clean-Up Day, April 10, are well advanced. In this every householder and lot owner is expected to join and most of them have indicated their purpose to do their duty. The women and children are getting deeply interested.

General satisfaction was expressed over the progress made.

W. L. Dubois, secretary of the Fly Eradication Committee, has sent the following to the Committee Chairmen and it is asked that they be read by all so that the methods may be thoroughly understood. The directions are based on Bulletin 118 of the United States Department of Agriculture:

1. Kill all the flies that are coming out of their hiding places now. These are the mother flies that have lived over winter and are ready to lay eggs. Each one of these flies may lay 5 batches of 125 eggs which means millions of flies by the middle of the summer. If all the over-wintering flies were killed we would have no flies later. Hence the great importance of swatting the spring fly.

2. Assuming that all the over-wintering flies will not be killed some will be left to lay eggs. These eggs will be deposited on horse manure if this can be found. If not in horse manure the eggs may be deposited in any fermenting or rotting vegetable or animal matter such as garbage, lawn clippings, contents of house vaults, etc. A pig sty with its manure and slop is a very prolific breeding place for flies. If all breeding places and material are cleaned up there will be no flies propagated by the mother flies that escape early spring destruction. The following course is suggested:

(a) Keep all manure, garbage and other refuse cleaned up and hauled away at least once a week. If manure cannot be taken away as often as that it should be kept in a tight box (unless the quantity be prohibitive) and after each removal from the stable to pile or box borax should be applied at the rate of 0.62 pound to every 8 bushels of manure. Apply the borax particularly around the outer edges of the pile with fine sieve or flour sifter and sprinkle 2 or 3 gallons of water over the borax-treated manure. The reason for applying the borax to the manure immediately after removal from the stable is that the flies lay their eggs on the fresh manure, and borax, when it comes in contact with the eggs, prevents their hatching. The treatment should be repeated with each addition of fresh manure but when the manure is kept in closed boxes less frequent applications will be sufficient. Borax may also be used on other manure and refuse, in garbage cans, etc., and around floors and crevices in stables and other buildings where thorough removal of breeding material may be difficult.

(b) Every family should be provided with a garbage can fitted with a tight lid. If these cans are frequently emptied and kept clean, flies will not breed in them. If householders will not keep cans clean a fly trap should be set in each can lid.

(c) Fly traps should be kept set on porches and elsewhere where flies are seen to collect. These traps should be baited with vinegar and sugar, equal parts, or with bread and milk. Bait should always be wet. Dry bait is of no account. Fly traps should be scalded and rebaited every day.

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*The Hershey Press,*
**April 8, 1915**

# Cleanest Town in America Will be Hershey's New Fame

**Committee Reports Show That All Its Citizens Are Enlisted in the Fight Eradicate the Flies and Make Clean-Up Day a Complete Success. The Work**

Saturday, April 10, is CLEAN-UP DAY.

Every day is FLY DAY.

Both purposes belong to the same movement to make Hershey the cleanest town in the world.

At the meeting of the Committee Chairman Murrie opened the proceedings by congratulating everybody on the fine spirit of cooperation and the prospects of making Hershey both a flyless town and the cleanest town in America. He called for reports from the chairmen of the committees.

Mr. Herr, chairman for Chocolate Avenue west of Square, reported that his committee had found everybody willing to cooperate and that all were interested in Clean-up Day.

Mr. Krause, chairman for the east part of Chocolate Avenue, reported progress. Mr. Ezra Hershey, of this committee, went out to look for flies, but reported that the only thing he scared up was a rabbit in his yard. It was decided not to swat rabbits.

Mr. Glynn, chairman for Cocoa avenue, said the householders would do their duty. Mr. Glynn ran across a curious point. A boy scout said he was taught not to kill any living thing; should he kill flies? The scouts were informed that flies are exceptions to their rule and that it is not only right but a duty to kill them.

Mr. McLaury, chairman for Caracas Avenue, said he had distributed the literature to the houses and had met with friendliness everywhere. The people will do their part.

Mr. Magee, chairman for Araba street, said everything was all right there.

Mr Heilman, chairman for the Park and the Zoo, reported that the ground had been thoroughly covered and that only one place needing attention was found. Orders had been given to fix that.

Mr. Zinner, for Spring Creek, said all the people were in favor of the work and that many of them were already cleaning up.

Squire Cassady, chairman for Trinidad Avenue, reported that conditions were already much improved and that the people were willing.

Mr. Alwine, chairman for Derry Church, reported that the movement was popular in his section and that Derry would be cleaned up and kept clean.

Mr. Keboch reported that the school children have their swatters and that he had inaugurated a contest among the pupils.

Mr. Clark reported that five hundred fly traps had been received and that one would be supplied free to every house in Hershey and Derry Church.

The spirit of the whole meeting was enthusiastic.

Clean-up Cards were ordered and the matter was placed in the hands of Mr. Herr.

On the point of removing the garbage and rubbish of Derry Church all doubt was promptly removed by Mr. M. S. Hershey, who was present. He said extra carts would be put on and the terms would be the same as in Hershey. This means an expense which Mr. Hershey bears personally, as the ten cents a week pays a very small part of the cost.

A final appeal was made that everybody get to work and make Clean-up Day a complete success.

**Three Carts on the Work**

No time has been lost. Instead of one cart collecting three are now on the job.

These carts will take away your rubbish that cannot be burned and your garbage.

Put this rubbish and your tin cans and such things in the alley. Help the garbage man by placing it conveniently.

Clean out all the outhouses. Get rid of all rubbish. Do it thoroughly.

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**Saturday—April 10—is Clean-Up Day. Get rid of all rubbish. Burn what you can. Put out the rest so the garbage men may get it conveniently. Kill the flies.**

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*The Hershey Press*, April 15, 1915

# Hershey's New Fame

It is not too much to claim that Hershey is today the cleanest town in America.

When the fight to make it a flyless town was inaugurated the interest was so keen that it naturally spread over the whole matter of local health and sanitation, and one result was the Clean-Up Day of last Saturday. This was no haphazard affair, but a carefully planned and ably managed crusade, reaching into all the details of the proposition. There was an actual cleaning up, with much burning up and much hauling away. Dirt and rubbish were banished.

Being less than a dozen years old Hershey has few of the local problems that afflict most places. It has no nuisances and no disease spots. It is clean and so when it has the added benefit of a real spring cleaning-up it comes forth just about the cleanest community that can be found anywhere.

Of course a penalty goes with such fame. We must keep up our reputation. There must be more cleaning all the time so that our general average shall be safe. There must be let up on the fly extermination program. That should go on all the time. Urge the women to help. Encourage the children to do their best.

A clean town with no flies is Hershey. Let us keep it so.

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*The Hershey Press*, April 21, 1915

# Keeping Up the Fight

This week is the important point in the crusade against flies. The cool weather has kept the old overwinter flies in their hiding places, but now they are crawling out and this week is the time to look for them and swat them before they can get to their breeding places.

These flies do not breed in the houses. They go outside. Therefore, if they can be killed the problem is solved.

Remember that a single pair can produce millions of new flies. The whole summer crop can be nipped in the bud by exterminating the big flies which are now looking for manure and rubbish in which to raise new families.

Set the fly traps and keep them set. And be very sure that the bait is damp. Flies are not attracted by dry bait. Sugar and vinegar make a fine bait.

Hershey can be a flyless town. It is now a very clean town. Let the good work go on and let everybody show a personal interest in its success.



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Essay

# The City Beautiful Movement and Planned Communities

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In the late 19th century, the City Beautiful Movement became popular in the United States for many reasons. Public interest came from several directions and perspectives. Some people were concerned about the physical environment, both designed and natural. Others were concerned about the human environment, the way people were living. Still other people were concerned about the political environment, how places were run and administered. All of these interests came together during the Progressive Era and had an effect on how our older cities have come to look today.

This essay examines the factors that shaped the City Beautiful Movement, as well as the influence of the World's Columbian Exposition on urban architects. The essay then looks at various cities' efforts to implement the City Beautiful concept and at the "company town" as an example of urban planning.

## Factors Shaping the City Beautiful Movement

A number of factors shaped the City Beautiful Movement. The first was industrialization. The post-Civil War period in America, when heavy industry was developing, saw a tremendous exploitation of natural resources: gold, iron, timber, oil, silver, coal, copper. Pennsylvania's landscape was very much transformed by the exploitation of coal and iron ore, the logging of its forests, and the production of iron and steel. These heavy industries were generally environmentally unpleasant.

A second influence was the substantial immigration into the United States at the turn of the century. The average rate of immigration was 100 arrivals per hour. Many of the immigrants found employment in these expanding industries. A third factor was an internal population shift—people moving from the country to the city—which was very much related to industrialization. Between 1880 and 1910, the urban population rose from 15,000,000 to 45,000,000 people. By 1920, roughly 40 percent of the U.S. population was living in cities.

Major changes in technology were a fourth factor shaping the City Beautiful Movement; electricity could be distributed widely, the telephone was introduced, and transportation changes such as urban (electrified) trolleys became widespread. The United States was almost completely connected by railroads by the end of the 19th century. People of modest means now had access to places that formerly had been in-

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accessible. One could travel to see the great natural wonders of the American west. Some of our national parks were established in areas that the railroad companies had previously been exploiting for tourists.

The wealth of the United States was also expanding; a new affluent elite who traveled was developing. Photography and photographs became more and more available. People were beginning to see photographs of real places in books, not just drawings in *Leslie's Illustrated Weekly*. People, through travel and photography, had greater access to places that were scenic and beautiful, as well as places that were ugly and unattractive.

Concern for the conditions of the human environment was growing; this concern represented the intersection of the City Beautiful Movement and the progressive spirit. There was increasing concern for "place" in general, whether a particular building or a whole city. This concern encompassed housing, sanitation, and clean water, as well as city governments' capability to manage all of these problems. This period saw the development of civic centers, a concentration of public buildings promoted as a more efficient way to operate government. Efficiency became the key word for improving urban life.

A significant number of American students of architecture went to Europe to study, specifically Paris, the principal site for architectural training in the western world. During the late 19th century, Paris had been transformed from a medieval city to a city of wide boulevards and grand buildings. When American students returned to the United States, they were eager to apply newly learned architectural design principles.

Later, architects became interested in design issues beyond individual buildings; they became interested in understanding how buildings relate to larger places. This was the origin of urban or city planning as a discipline of study and practice.

## The Colombian Exposition

The touchstone for much of the City Beautiful Movement was the World's Colombian Exposition held in Chicago in 1893. This exposition introduced to many the ideas of classically inspired grand buildings placed in a grand setting. The relationship of each building to the whole was dramatically illustrated. A specific architect designed each building, but a consortium of architects worked out the overall plan. The exposition site was referred to as the "white city" because the buildings were all finished in white plaster, which gleamed in the bright sun.

One view of the new architecture is provided by a 20-year-old woman who visited the fair in May 1893 and wrote about it in her diary:

> We arrived here yesterday, at eleven in the morning but it seems that we had already been here for days. We had seen so much and accomplished so much. Immediately after lunch yesterday we all started out to the Fairgrounds. You do not get a very good view of the buildings, until you are right on the grounds, and they suddenly appear to you, in all their beauty and grandeur. Everyone said that it is impossible to describe the impression they first make on you and everyone will have to go on saying that. I felt the same as I did when we arrived in Granada, that moonlight night three years ago, and drove through the dimly lighted streets of the city, and then up the hill through the tall trees to the Alhambra. It is a feeling one cannot tell of but which one never forgets.
>
> The first thing we did was to get into a steam launch and go through all the lagoons so as to have a good idea of the buildings and see how they are placed. It is truly what one should call "the Dream City"; it is too ideally beautiful to be real. When we went into the principal lagoon, the Court of Honor, I actually stood up in the


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boat and almost screamed with wonder and surprise at the marvelous beauty of the scene.[1]

The 1893 exposition was not the only one held in the United States. Others included the Centennial Exposition (Philadelphia) of 1876; the Tennessee Centennial Exposition (Nashville) in 1897; the Trans-Mississippi International Exposition (Omaha) in 1898; the Louisiana Purchase Exposition (St. Louis) in 1904, acclaimed for its use of electric lights; the Lewis and Clark Centennial Exposition (Portland) in 1905; the Jamestown Exposition in 1910; the California-Pacific Exposition (San Diego) in 1913; and the Panama Pacific Exposition (San Francisco) in 1915, which celebrated the opening of the Panama Canal. These expositions opened people's eyes and minds to the architectural possibilities for American cities.

## The Grand Urban Plan and American Cities

The idea of a grand urban plan was not new to the United States. Pierre Charles L'Enfant's original plan for the District of Columbia laid out in the 1790s incorporated many diagonal boulevards with long vistas and terminal points for grand buildings. However, little of the intended grandeur was realized before the 20th century.

The Chicago exposition provided the impetus for completing the plan for Washington. Some dreamed of making Washington the grand capital that it was "intended" to be. In 1900, the McMillan Commission was created to re-evaluate the plan of the Mall and to oversee the design and development of new federal buildings to ensure that future buildings would appropriately express the dignity and importance of the national government.

Washington was not the first planned American city. In 1681, Philadelphia was consciously laid out following a simple grid. By the end of the 19th century, various interests started to focus on introducing something grand into the city's original but repetitive grid plan. The goal became focused on laying out a boulevard that led directly from the new City Hall (1872) in the central square west to Fairmount Park—to connect the urban center to nature, one of the principles of the City Beautiful Movement. City Hall was surrounded by dense urban development, some of which was demolished to build the Benjamin Franklin Parkway connecting City Hall to the park.

Philadelphia also wanted to build an art museum. Following the Centennial Exposition of 1876, the city had established a museum in Memorial Hall, one of the buildings remaining from the exposition; however, the city wanted a new building in a different location. A prominent hill in Fairmount Park was selected as the site for the proposed museum. A new boulevard, slicing diagonally through established neighborhoods and to be bordered by other cultural institutions, was proposed to connect directly to the City Hall in Penn Square. The goal was to have the plan executed with public money and carried out under a single authority; however, adequate public funding was never secured. The concept succeeded to some extent, but in a city as large and complex as Philadelphia many competing interests needed to be balanced.

Harrisburg developed one of the most successful and complete city beautification programs in the country. The plan did not focus on implementing a disruptive grand design. Instead, Harrisburg focused on improving the general public environment; it was a utilitarian and practical plan. The public was concerned about water and sewage. The east bank of the Susquehanna River, which the city abuts, was used as a general dump; also, the river flooded with some regularity. In addition, the river was the source of the city's drinking water as well as the place into which the city's sewers discharged. Streets needed to be paved and streetlights needed to be installed. There were not enough parks and no playgrounds.

1. Sloane, Florence Adele. *Maverick in Mauve*. New York: Doubleday, 1983, p. 72-73.

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Harrisburg was also bisected by its historic transportation and industrial corridor (created by the former Pennsylvania Canal and later the railroad). This low-lying area was drained by the Paxton Creek, which flooded repeatedly. The city had developed on two levels: the low-lying land between the Susquehanna River and the Paxton Creek (the downtown) and a bluff to the east of the Paxton Creek (called "the Hill"). When the river and the creek overflowed their banks, the two sections of the city were cut off from each other. One specific goal in planning improvements was to have a transportation connection between these two areas so that residents would not be marooned during floods. The hundreds of trains that passed through Harrisburg everyday made the at-grade crossing particularly dangerous for people. Having bridges that spanned the industrial-transportation corridor would solve both problems.

In 1900, led by J. Horace McFarland, the city's leading citizens hired three professionals to look at parks, streets, and flood control. A plan was presented within a year. The plan recommended creating an extensive park system, building a water filtration plant, expanding the existing reservoir in what has become Reservoir Park, and bridging the industrial corridor between the downtown and "the Hill." The city created a lake by damming Paxton Creek; with controlled outlets and diversion channels, water flow could be regulated in times of high water.

Another city goal was to improve the riverfront by making it a park. The Susquehanna River was always low in August. A dam was built to keep the water level above the sewer outfalls so that raw sewage would continue to be carried downstream by the natural flow of the river. To prevent further erosion of the riverbank, the plan recommended constructing a concrete embankment with a seven-mile-long esplanade complementing the park that was proposed for the top of the riverbank. This park was to be connected to both Wildwood Park and Reservoir Park by a parkway. This original design has recently been rediscovered and has been reactivated as the Capital Greenbelt.

Municipal and private projects in Pittsburgh in the early 20th century reflect the City Beautiful Movement interests as well. In the late 19th century, a city resident gave a substantial amount of land to the city. With subsequent land acquisition by the city, this vast area east of Pittsburgh's downtown was turned into Schenley Park. A local real estate developer bought adjacent acreage and developed it into a residential neighborhood called Schenley Farms. The last third of the original holding became the new home of the University of Pittsburgh, relocating from its earlier downtown location. At about the same time as the university was relocating to Oakland, a number of other cultural institutions also built new facilities. With the adjacent Schenley Park, Oakland was considered to be a cleaner, healthier environment, much superior to the downtown.

One idea that advocates of the City Beautiful Movement emphasized was that investment in public improvements would stimulate and enhance private investment. Private property improvements would lead to rising property values, as places became attractive places to live and the tax base increased.

## Planned Communities

Pennsylvania has many examples of what I call planned communities. These include iron plantations dating from the 18th and early 19th centuries, planned industrial communities from the late 19th and early 20th centuries, company towns, landscaped suburban communities, and housing for industrial workers. Some were given more thought than others, some dealt with more complex issues, and some reflect more comprehensive planning than others. What these places share is having been created at a single moment, not as evolved development.

During the 18th and 19th centuries Pennsylvania was a principal source of iron


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ore in the United States. In addition, the state's extensive forests provided the wood needed for producing charcoal; iron plantations of vast land holdings were located in remote areas of the state. These plantations were complete communities; everyone associated with iron production—from the lumberjack to the iron master—lived there. All the facilities needed to support the life and work of the plantation residents were available. Cornwall in Lebanon County and Greenwood Furnace in Huntingdon County are two examples.

Ambler, Montgomery County, is an example of a company town. It does not fit the expected pattern of a company-built town because a community existed prior to the relocation of the headquarters of Keasbey & Mattison Company from Philadelphia to Ambler in 1886. The company used magnesium for its pharmaceutical products. A nearby quarry produced magnesium. Keasbey & Mattison built a factory and houses for employees from executives to average workers. The type of house differentiated the level of the worker. Workers lived in small semi-detached houses; skilled workers had larger, single-family houses. The majority of company employees, however, did not live in company housing. Keasbey & Mattison also built and operated such other facilities as a company store, garage, and hotel. Most of the buildings in Ambler that have been identified as company-built were constructed of stone. The architectural quality illustrates the company's substantial investment in real estate.

Vandergrift, established by the Apollo Iron & Steel Company in Westmoreland County, was laid out in 1895. The 1890s had been a period of general labor unrest, and the Apollo Iron & Steel Company was very interested in avoiding labor disputes. As a result, the company focused on providing its workers with a better place to live. The company hired the premier American landscape architectural firm at the time, Frederick Law Olmstead & Associates, to prepare plans for a town. Taking advantage of the hillside site, the Olmstead firm laid out a picturesque town of curved, tree-lined streets and included a park. In addition, the company built a civic center—a combined town hall, library, and theater—located near the riverside steel plant. The company also laid the sewer and waterlines and planted the street trees. House lots were sold to skilled workers as long as they were not members of a union. Apollo also gave a building lot to every religious institution and provided $7,000 to any congregation to build a church if it would match the money and have a building erected within two years.

Windber, in Somerset County, was planned and built about the same time. It was a "complete" company town. The Berwind-White Coal Company, one of the premier bituminous coal mining companies in the United States, established Windber as a headquarters town—the hub for about 15 of its "patch" towns. The company owned many of the community institutions, such as the hospital, the company store, and a bank, and installed sewer and waterlines throughout the town. Windber had wide, paved streets as well as sewer and water service—amenities that were not available in patch towns. Company trolleys connected the satellite mining towns to Windber, making the company institutions available to all its employees. The company owned the land, built the houses, and rented them to employees. People who did not work for Berwind-White could buy property and establish businesses in Windber; however, the company retained all mineral rights. Miners lived in small houses mostly located in the flood-prone section of Windber, while management lived in larger houses on higher terrain. The company also provided a house for the owner and one for visiting company executives.

The Berwind-White Coal Company was quite successful and needed a stable and productive work force for its success to continue. The company wanted to maintain as positive a relationship as possible with its workers. Most mining towns in western Pennsylvania were remote; there was neither a pre-existing population nor established

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communities. Mining companies had to both establish the place and acquire the people.

Colver, in Cambria County, was an example of a coal "patch" town, which means that it was associated with a particular mine, in this case that of the Ebensburg Coal Company. The owners were Weaver and Coleman, whose combined names create "Colver." Laid out in 1911, Colver's plan was a straightforward grid with the mine site to the west of the town. All the houses were built and owned by the company and rented to the employees. The houses had electricity but did not have indoor plumbing; water was available from a shared outdoor spigot. Most of the buildings on Main Street were company facilities: a bathhouse where the miners could wash at the end of each shift; a building housing the elevator for descending to the mine; a theater; a company store; and a company-owned hotel for anybody coming to town for company business. Amenities such as trees were planted along the streets where skilled workers lived but not on streets where unskilled workers lived. In 1914, the company built a school. Additionally, a large park was provided for both passive and active recreation The company provided supervised recreation for children and promoted employee baseball teams.

Wyomissing in Berks County was a company town in a very different sense; it was a landscaped suburb. The Reading Suburban Real Estate Company began development in the 1890s. Later they enticed the owners of the Textile Machinery Corporation to locate a new factory along the railroad that traversed Wyomissing. In 1912, Textile Machinery Corporation hired John Nolan of Boston to prepare a plan for the town. Nolan's plan combined a grid street system with curvilinear boulevards. All streets were planted with trees and lined with comfortable middle class suburban houses.

One of the goals of City Beautiful Movement proponents was to create an environment that fostered a sense of community. Whether the mid-20th century development of suburban communities with curved, tree-lined streets, cul de sacs, and automobile-based transportation. is a natural progression of City Beautiful ideals is a debate beyond the scope of this paper; however, I think there is a connection that I hope you, too, can appreciate.

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## Document-Based Lesson 8

# Hershey as a Planned Industrial Community

Daniel P. Duerring
Wyalusing School District

### Historical Background

Prior to industrialization, most Americans lived on farms. Cities were small by modern standards, with no skyscrapers and very few factories. Most cities were shipping centers rather than centers for manufacturing.

Industrialization expanded the need for factories, which consequently increased in size and number. Most factories were located in the city. With the creation of this new job market, many people moved from the farm to the city for the better life they thought the urban environment would provide. Immigrants to the United States also settled in the cities to work the factories. By the early part of the 20th century, more people lived in the city than on farms, a first in U.S. history.

For many residents, the city was not an ideal place to live. It was crowded, noisy, and dirty. Cities grew without plan and with a minimum of control. Newcomers crowded into attics and basements. Large apartments were broken up into many smaller ones. The result was the slum.

Most industrialists did not see this as a problem. Industrialists needed factory workers; the more residents a city could support, the lower the wages a businessman needed to pay. The industrialist's only concern was the need to make a profit.

When Milton Hershey created his factory, he also needed workers, but his factory needed to be located near the source of milk, the most perishable of the raw materials needed to make chocolate. Hershey was to be different from other company towns. It was intended to be a company town that guaranteed to the workers an affordable place to live with big-city charm but a beautiful country setting.

**Objectives:** After completing this lesson, students will be able to:

1. List the types of services to be constructed in Hershey, Pennsylvania.

2. Give reasons why some services were not planned for Hershey, Pennsylvania.

3. Explain why they would or would not want to live in Hershey, Pennsylvania, during the Progressive Era.

4. Classify houses as belonging to top management, middle management, or workers and explain what differentiated housing designed for different social classes.

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**Time Required:** 2 class periods

**Materials and Preparation:** You will need copies of Handouts 10, 11, and 12 for all students. You may prefer to make an overhead of Handout 12 so that the photos can be shown and discussed with the entire class. Preparing an introduction to company towns using the preceding essay will be useful.

## Procedure

1. Ask students if they know what a company town is. Encourage them to break the phrase into its component parts in order to develop a definition (a town that is dependent on one company for all or most of the necessary services or functions of town life).

2. Use information from the preceding essay to provide examples of company towns in the Progressive Era. Ask students to identify what they believe would be advantages and disadvantages of company towns. Post all answers on the chalkboard. *Possible advantages would include a more pleasant environment than in a large city; guaranteed services, including employment; shared interest with others in the community (since most would work for the same company). Possible disadvantages include little individual control over the environment, high prices for services caused by the monopoly in the town, few employment opportunities outside the company.*

3. Explain that Hershey, Pennsylvania, was a company town. The founder of the Hershey Company needed to locate his factory in the country near the source of milk, the most perishable raw material used in manufacturing chocolate. However, there were neither workers nor places for workers to live in the Pennsylvania countryside where he planned to build his factory. Thus, plans were made for the town of Hershey.

4. Distribute Handout 10 and allow time for students to read the articles. Use the following questions to stimulate discussion about the articles:

- ❑ What was the site for the town like? *It was farmland covering 800 fertile acres.*
- ❑ Describe the houses that would be built. *They would be comfortable with modern conveniences. Mr. Hershey wanted everyone to own their own home.*
- ❑ What else would be built on the site? *The factory, a park, a school house, a church building, a department store, an inn, a cafe, a restaurant, a YMCA, a newspaper, a barber shop, the industrial school, a trolley, a fire company, blacksmith shops, musical organizations, pumping station, greenhouses, and lawns and garden.*
- ❑ Why would there not be a police department or jail? *There would be no crime because everyone would be happy.*
- ❑ How would the town be self-sufficient? *The town would support light and power. All landowners would grow their own fruits and vegetables.*
- ❑ Where would the factory be located? *On high, dry ground.*
- ❑ How would you be able to get around in the factory? *An underground railroad.*
- ❑ How was Milton Hershey described in the *Business World* article? *Energetic, resolute, persistent, with a quiet and determined disposition, unpretentious, and a philanthropist.*
- ❑ What restrictions were placed on the community? Why did Hershey want these restrictions placed on his town? Why were many of the items listed in the restric-


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tions in 1903 built by 1910? *The second article, Sale of Lots, Restricted contains a long list. The question is not whether a blacksmith shop was built but who would control it.*

4. Allow students to add to the list of advantages and disadvantages of company towns started in Step 2 above.

5. Distribute Handout 11 and allow time for students to read it. Ask students to speculate on why the Hershey Improvement Company wanted people to build homes in Hershey. *If individuals owned their own homes, they would have greater pride in the home and in the community. In addition, homes built for individuals would be of varying size and styles, which would make Hershey different from most company towns, where homes were uniform.*

6. Distribute Handout 12 and ask students to classify the homes as belonging to top management, middle management, or workers. See the source information below for answers. Ask them to identify the criteria they used for deciding how to classify the homes pictured. *The major criteria are the size of the home and the amount of open land that surrounds the home. Workers' homes were very well built by company town standards but were still not as luxurious as those of management.*

A. Photograph of the Ezra Hershey Home, Hershey Community Archives MHS.4C.3705 (home of top executive).

B. Photograph of home occupied by W. Allen Hammond, Hershey Community Archives 4C3705 - N94.36 (home of a middle manager).

C. East Granada Avenue, Photograph # 17, Hershey Community Archives, MHS.4C.3705 -N91.67 (homes of middle managers).

D. Trinidad Avenue, Hershey Community Archives (homes of factory workers).

E. Chocolate Avenue (south side), Hershey Community Archives, Hershey Community Archives, 1Do28/S001.155 (homes of factory workers).

F. East Chocolate Avenue, original homes of (from right to left) J. B. Leithiser, William F. R. Murrie, Ezra F. Hershey, and John E. Snyder. Hershey Community Archives, MHS 4C3702 - M88.84 (homes of executive)

G. Areba Street, View looking East MHS.4c.3705 - N91.275 (homes of factory workers).

7. Tell students to imagine that they lived in 1903. Would they want to live in Hershey, Pennsylvania? Why or why not? Assign each student to write a letter to a friend or family member explaining whether he/she would want to live in Hershey and giving the reasons for that choice.

## Extension/Enrichment

Have students investigate planned communities today. One example would be Celebration, Florida, which was planned and built by the Disney Corporation. What are some of the issues that have arisen around Celebration? Would students want to live there, or in a similar community? Why or why not? Why do some people choose to live in communities where restrictions are placed on them (condominium complexes and covenant-controlled developments may provide examples in your own community)? Why do other people choose not to live there?

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# Hershey, Pennsylvania: A Planned Community

## Hershey's Chocolate Town

Where Happiness and Health will go Hand in Hand with a Great Enterprise—"Loveliest Village of the Plain. Where Health and Plenty Cheer the Laboring Swain"

By Joseph Solomon

A model town, a modern factory, a substantial business—these are the realizations of one business man's dreams. But they were dreams entertained without cessation of the activities which led toward success.

A long time ago—to be exact, in eighteen hundred and sixty—Milton S. Hershey, the famous chocolate manufacturer, who was born and raised on a farm in beautiful Dauphin County, Pa., determined that some day he would return to the scenes of his childhood, with wealth sufficient to own a fine home, build a great factory, and help his fellows.

Now, all is to come true, and buildings of reality are to appear, after those plans drawn in fancy's vision.

A large tract of land was recently secured at Derry Church, Pa., twelve miles from Harrisburg. Plans were approved for the "Model Town" and factory; and building operations are well under way looking to their early substantial existence in visible forms.

The site of the new town is ideal. It will cover about eight hundred acres of high fertile land between the Swatara and Spring Creeks, which will supply drinking water and the motive power. A series of comfortable houses with all modern conveniences will be erected here; and it is Mr. Hershey's intention to permit his tenants to eventually own the property, by purchase on easy terms of payment.

Not less than six hundred persons will inhabit this miniature city, when it is completed.

It will include a park, properly laid out, a school house, and a church building. It will have its individual form of local government, but there is no provision for a police department, nor for a jail. These are not expected to be necessary under the conditions. Incarceration and punishment are for criminals-unhappy mortals. Here there will be no unhappiness, then why any crime.

The town will be self-supplying, as to light and power, wherever needed. Ultimately everyone will own his own little farm; and it is quite possible that the home requirements of fruit and vegetables will be met by the product from the land.

This modern Auburn will fall into the peaceful pursuit of its own variety of happiness, and it is easy to foretell the prosperity that must come in such environments.

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From *The Business World: An Office Magazine* (formerly published under the style of Business and The Public Accountant). New York, June, 1903, vol. 23, no. 6, 18th year.

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"Where humble happiness endears each
scene,—
The Sheltered cot, the cultivated farm,
The never failing brook, the busy mill,
The decent church that tops the
neighboring hill."

Special efforts are being made to the end that this shall be the most complete factory for producing chocolate and cocoa in existence; and no expense is being spared in construction and equipment to secure rapid, safe and thorough manufacturing. The factory, situated on high, dry ground, consists of practically sixteen different buildings under one roof. There will be no loss of time in transporting goods, as each room will open upon another, in natural sequence.

The room wherein is kept the raw material, connects directly with the roasting and hulling branches; this in turn opens into the milling department, then comes the cocoa presses, and so on through the molding, finishing, wrapping and shipping departments. The sugar supplies, ice machine, box factory and cold storage will have like convenient location.

Through the entire length of buildings, under a covered passageway, will extend a miniature railway system for quick transportation from end to end.

An original system of drainage will be installed, whereby all pipes will follow this passageway, buried eight feet below the surface, and fitted for convenient inspection.

Plenty of light is provided for by wide areas of open space between the different department buildings, extraordinary cleanliness will prevail everywhere, and all floors will be of concrete.

The factory itself will be close to the railroad tracks, and three sidings will connect with the shipping rooms.

An experimental station or creamery is now in operation and model cow barns have been erected close by.

Milton S. Hershey, the builder of this model village and factory, has had a very interesting career. He was born near the site of his new plant, and the resources and possibilities of this part of the country impressed him, even at a very early age. At the age of sixteen he learned the confectioner's trade, at Lancaster, Pa. In 1876 he went to Philadelphia and started in a small way to manufacture and retail confectionery.

These efforts did not meet with success; and a later attempt to do business in New York City resulted in a dismal failure. Nothing daunted, he returned to Lancaster, where he originated the idea of making caramels on a large scale.

Being encouraged in experiments along this line, he increased his force and capacity until he became recognized as one of Lancaster's most successful business men.

In 1895 The Hershey Chocolate Company was formed, and the caramel interests were soon after sold out to the American Caramel Company.

Since that time Mr. Hershey has devoted his time entirely to the production of the chocolate and cocoa marketed under his name and known the world over.

In this energetic and resolute man's success there has been no element of "luck," so-called. It required persistency and continued effort to attain to his present prominence and reputation. His parents were old Pennsylvania settlers, and sturdy Mennonites; and from them the son doubtless inherited the broad success-qualities which have pulled him through difficulties, and brought him out of the wilderness of business difficulties incident to the travels of every one who enters the rough and narrow pathways that lead to the final goal of the heart's desire.

The maker of the new village—Chocolate Town, if you please—is a man of quiet but determined disposition. He is broadminded, but careful. Possessed of great wealth, he is yet unpretentious; and prefers an unostentatious life to one of show. He is a church member, and, in an unassuming way, a philanthropist.

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Among the deep lying causes of his great success, we find a most conscientious intention to do what is just and right, under all conditions. His energy is of the persistent kind, and the absolute mastery of the details of his business gives him a firm grasp and complete control of all details, to each of which he has given careful attention.

Mr. Hershey quite appreciates the advantages of printer's ink, and expects to extend the advertising which has helped him thus far to secure recognition. He will use the newspapers, catalogues, posters and store demonstrations.

Thus runs a brief story of one successful American manufacturer; and shows how he proposes to come back to Nature, insofar as business will permit, by bringing the business to nature. We shall soon see the actuality of his intention at Derry Church, and undoubtedly, may there witness a successful scheme for putting a chocolate plant and a thousand employees into improved conditions which work to the good, socially, physically and morally, of all concerned.

Mr. Hershey's own residence will be included in his new village, where he will maintain his own creamery and dairy, using milk and cream from a choice herd of Alderneys.

Landscape artists and builders are now busily working at Derry Church, and about Christmas of this year the owner, with his happy family of fellow-workers, expects to move into Chocolate Town, and take possession; and here's to their very good health! Drink it in the cup which nourishes but does not inebriate.


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# Hershey, The Chocolate Town

A FEW OF THE THINGS TO BE SEEN IN HERSHEY,
THE MOST UNIQUE TOWN IN PENNSYLVANIA

During the summer thousands of persons visit Hershey, the chocolate town, to see the home of the Hershey Chocolate Company, also the little town itself which is unquestionably the most unique community in Pennsylvania. This town of 1,000 persons is not incorporated nor is there any government or discipline over the jurisdiction of county and township officials and the carefully organized and executed business regime of Mr. Milton S. Hershey, the man after whom the town was named. Co-operation prevails, all being concerned for the common welfare.

Hershey is situated on the Philadelphia and Reading Railroad between Harrisburg and Lebanon, 127 miles east of the capital city. Six trains daily from either direction stop at this station. It can also be reached by trolley each hour from Harrisburg or Lebanon. The only way to appreciate this unique and interesting place is to "come and see." This you are cordially invited to do. The following are some of the things that it has been possible for one man in less than eight years to organize and carry on with the aid of careful system and just execution.

## Hershey Chocolate Company

Business began in Lancaster by M.S. Hershey in 1895; moved to Hershey in 1906; incorporated on January 1, 1908; first building of present factory started in 1902 and completed in 1906; since 1906 there have been additions from year to year until now there are approximately [illegible] acres of floor space; 1,000 persons are employed of which number 400 are girls, the remainder men and boys; 2,800 H.P. is used in operating the factory storage supply of 300,000 gallons of water stored in tanks at the factory at all times for the protection of property; entire floor space is thoroughly covered with modern fire protection; products manufactured here are sold in every town in the United States; shipments aggregate approximately 5 carloads a day; 100,000 pounds of milk are used daily in the manufacture of the milk chocolate.

## Hershey Trust Company

Organized April 25, 1908; capital paid in fall, $125,000; surplus, $50,000; undivided profits, $62,000; deposits $550,000, 3% interest, compounded semi-annually, paid on six or twelve months certificates of deposit; dime savings department.

## The Big Department Store

Beautiful building of Spanish design; [illegible] floors, 15,000 square feet each; grocery department, hardware, gents' clothing and furnishing, furniture and carpet, tailoring, notions and fancy goods, muslin underwear and ladies' apparel, candy and drugs, soda fountain, ice cream plant using Miller brine freezer, music, [illegible] and china departments; sanitary meat market with three large cold storage rooms; electrical, plumbing, tinning, cobbling and harness making departments; automobiles (Selden); 37 persons employed.

## Hershey Inn

Beautiful rooming accommodations rivaling those of a large city; chestnut workwork in natural finish; halls and lobbies furnished in mission; electric lights; private rooms; suites with private bath; reasonable rates.

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Ca. 1910

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## Hershey Café

Mosaic tile floor; white enameled woodwork; mahogany tables and chairs; elegant linen and solid silver; fountain and beautiful stained glass skylight over which are numerous electric lights shedding a rich subdued light upon the tables below; meals for out-of-town parties, automobile parties and banquets a specialty.

## Hershey Restaurant

Accommodations for 300 at one time; meals served *table d'hote* and *a la carte*.

## Hershey Improvement Company

All real estate transactions handled by this department; large number of desirable houses for rent; many fine homes for sale; desirable building lots being sold daily at cheap prices; all modern improvements, water, electricity and bath. The company is constantly spending vast sums of money on permanent improvements from which the home buyers derive the benefit.

## Christian Associations

Y.M.C.A., 900 members; two employed officers, general secretary and physical director; reading room; gymnasium, and new limestone gymnasium in construction with floor 60x40 feet, swimming pool, running track and visitors' gallery; dormitory accommodations for 55 men; junior department, summer garden work; athletic teams; bowling alleys; Boy Scouts; night school in winter.

Y.W.C.A. recently organized; 40 members; will be developed along lines of other similar organizations.

## Schools

Beautiful limestone building, to be doubled in size this summer; 300 pupils in attendance in Primary, Secondary, Intermediate and High School departments; 49 pupils in the High School which is of the second class. The diploma is accepted by all of the smaller colleges.

## Hershey Press

A weekly paper, magazine style, unique typography; circulation 1200; big jobbing department; Mieble cylinder press; 2 jobbers; large Seybold paper cutter; Rosbeck rotary perferator, Little Giant baling machine; Dexter folding machine; Potter proof press, Portland Multiple punching machine; Rosbeck stitching machine, electric glue pot, big line of display and book type; ready to print anything from a name card to a catalog.

## Hershey Park

An ideal picnic and pleasure ground of 150 acres; boating, swimming, merry-go-round, "zoo," children's playground, athletic field, bowling alleys, big dancing pavilion, photography gallery, coffee houses, rain shelters, miniature trolley, restaurant; unique theater, finest and best equipped park theater in the country; its seating capacity is 1,500 tiered seats, stage 50x50 feet; free performances of the "best" in vaudeville every evening during the park season.

## Barber Shop

Large, neat, three-chair shop; city tonsorial artist in charge; bootblack and porter; electric shampooing and ladies' work a specialty.

## Hershey Laundry

Large, limestone building, well lighted and ventilated; power, electricity; extractor, mangle, collar and cuff ironer, body ironer, Bishop collar and cuff starcher.

## Hershey Industrial School

School possesses 500 acres of land deeded by Mr. and Mrs. M.S. Hershey together with buildings on same; male, white orphans between the ages of 4 and 8 years


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admitted; boys may remain until 18 years of age; given general and technical training; non-sectarian but boys are given moral and religious instruction; 16 boys now enrolled.

## Trolley Service

Mr. Hershey has built and is now operating 121 miles of track connecting Hummelstown, Hershey, Palmyra and Campbelltown; other lines are under way; the line operates five large modern cars, 4 small ones and one work car; thru schedule to Harrisburg and Lebanon; roadbed and equipment equal to any short line in the country.

## Churches

There are five churches in Hershey: United Brethren, Presbyterian, Lutheran, Dunkard and Mennonite.

## Volunteer Fire Company

Organized August 31, 1895; membership, 120; hose house with auditorium and billiard and social rooms; chartered under the laws of Pennsylvania; equipment consists of Button Stearn engine, hook and ladder truck, hose wagon with 1100 feet of hose; two hose carts, or jumpers, with 400 feet of hose each. Fire hydrants over the entire town and on the farms owned by Mr. Hershey.

## Hershey Bell Telephone Company

Local exchange with 100 phones in offices, residences and farm houses on Mr. Hershey's farm; long distance connections.

## Hershey Farms

Total area of tillable land, 3,000 acres; strictly dairy farming; Holstein cattle used exclusively; 700 head of cows and young stock; 200 head of horses and mules. Farming is all carried out along the most modern scientific lines.

## Blacksmith Shop

Located centrally and provided with most modern equipment for horse shoeing and wagon repairing. Skilled smith in charge.

## Musical Organizations

There is a band in Hershey composed of 20 pieces; trained leadership; free concert every evening in the park during the summer. Y.M.C.A. orchestra of 12 pieces; Y.M.C.A. glee club.

## Power Plant

Furnishes heat and light to 22 factory buildings; power for the H. & C. trolley line, lights for the entire town of Hershey. Boiler room is equipped with 16 boilers of 150 horse power each; 2 brick stacks 6 feet in diameter and 155 feet high; fire pump capable of handling 1000 gallons of water a minute in case of fire; 6 engines ranging from 125 to 650 horse power connected with dynamos generating current of 220 to 550 volts; 2 refrigerating machines of 150 tons refrigerating capacity. Diesel oil engines are soon to be installed in another power plant which is being built.

## Pumping Station

The water in Hershey is of the purest kind being supplied from springs coming forth clear and cold from the limestone rock. Pumping station is equipped with 2 steam boilers and both steam and electrically operated pumps of a combined capacity of 1700 gallons water per minute. Water is supplied to Hershey Chocolate Company, residences in town and Hershey farms.

## Greenhouses

These are 2 in number; filled with fine collection of large tropical plants together with many thousands of bedding plants used on the grounds in summer.

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## Lawns and Gardens

The Hershey lawns are about 60 acres in extent; dotted over with beautiful trees, shrubbery and evergreens as fine as a skilled landscape gardener can make them; large fountains, flower beds drives and walks; golf links; there is unrivaled beauty here.

## Forestry Department and Nursery

This department contains 50,000 young trees of White Pine, Australian Pine, Hemlock, Spruce, Punus Sylvestrus, Norway Maples, Pin Oaks, Red Oaks and Mountain Ash; a peach and pear orchard of 1,000 trees; and 500 grape vines.

## Information

Visitors are always welcome. Factory is open to visitors from 8:30 to 11:30 a.m. and 1:30 to 5:30 p.m. For information concerning the park or café call at the Big Department Store.

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## 1903 February 19, Thurs evening *Harrisburg Independent*—3

### Hershey: Sale of lots, restrictions

nor...will at any time hereafter erect or build...upon the hereby granted lot of land...any hospital, hotel, tavern, drinking saloon, piggery, blacksmith, carpenter, machine or wheelwright shop, stem mill, tannery, slaughterhouse, butcher shop, skin dressing establishment, currier shop, livery stable, glue, soap, candle, lamp black, condrette, or starch manufactory, or any factory of any kind where power shall be used, or any building for the manufacture of malt or soirituous liquors of any kind, or any building for offensive purposes or occupation, noxious, unwholesome, or offensive to the neighboring inhabitants: ...nor shall the land hereby conveyed, or any part thereof, be laid out or used as a cemetery; that no fence shall be built, constructed, or maintained, on any part of said premises, unless the nature, kind, shape, style, and material shall have been first made known and shown to the said Milton S. Hershey, his heirs or assigns, and shall have received his or their approval; that no outcloset or privy shall be erected or maintained on any part of said premises, unless the same be at least eight feet wide, ten feet long, and ten feet high; that no shed or structure of any kind shall be erected on the land hereby conveyed, or any part thereof, before a dwelling house or building for ...business purposes has first been erected: and must not have what is commonly known as a flat roof, and no barn, stable, coop or other outbuilding shall be erected therein closer to the street front than seventy-five feet: nor shall any dwelling house, for the use and occupancy of more than one family be erected or maintained on said premises, or any part thereof unless the plans for the same shall have been first submitted to and approved in writing by the said Milton S. Hershey, his heirs or assigns.

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## Hershey Advertisement

Economists are cautioning the people of this country against

# WASTE

Has it ever occurred to you that probably the greatest waste of private income—of earnings—is that which comes through the payment of rent? Have you ever figured what a terrific item the annual payment of rent adds to the cost of maintaining your family? Can't you realize that if you were the owner of your home your income would go much further in maintaining your home establishment.

STOP THE GREAT WASTE INVOLVED
BUY A HOME

## BUY A LOT AND BUILD IN HERSHEY

THE MOST BEAUTIFUL TOWN
IN PENNSYLVANIA

For Further Information Apply

## Hershey Improvement Co.

Source: Hershey Community Archives, May 20, 1910.


BEST COPY AVAILABLE

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# Homes in Hershey

A.

B.

Source: Hershey Community Archives.

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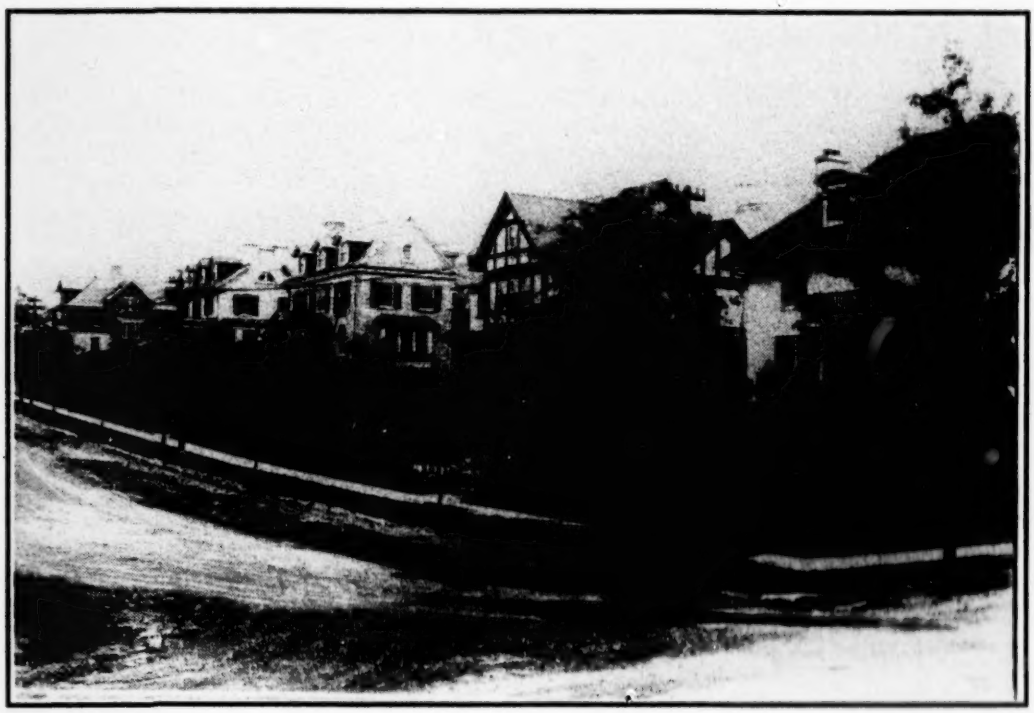
C.



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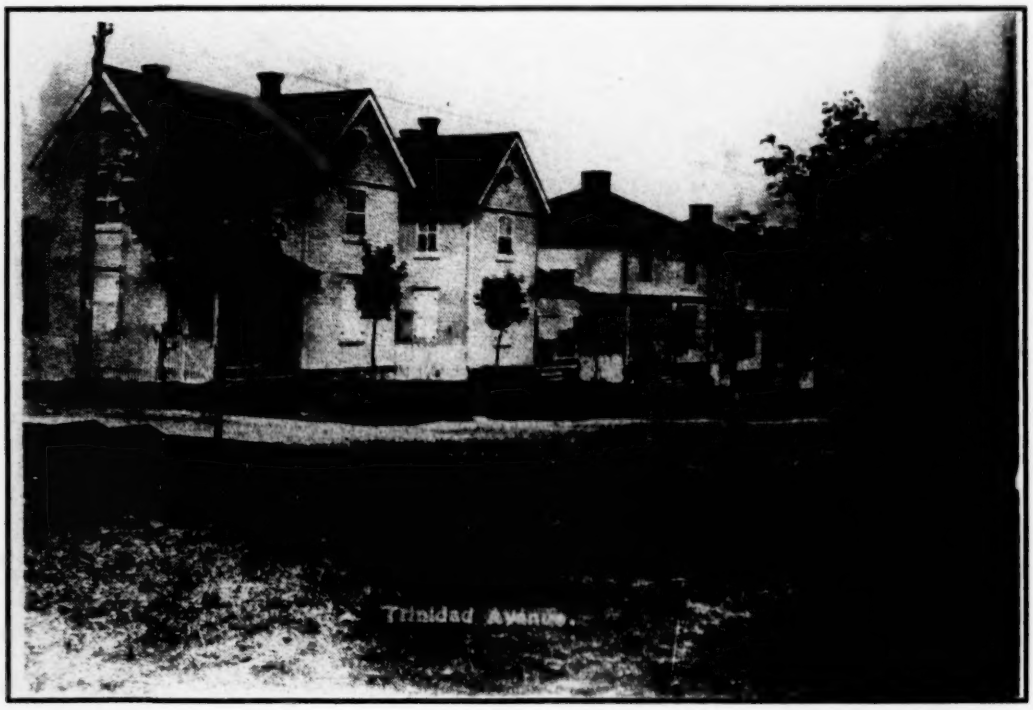



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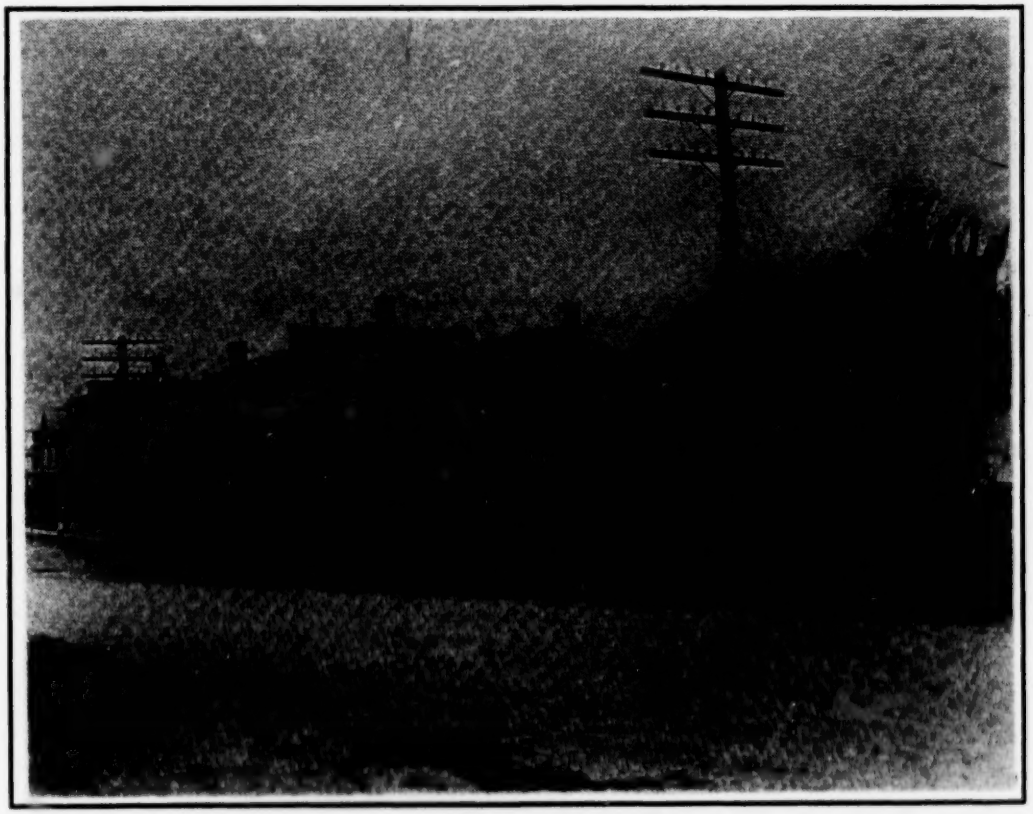

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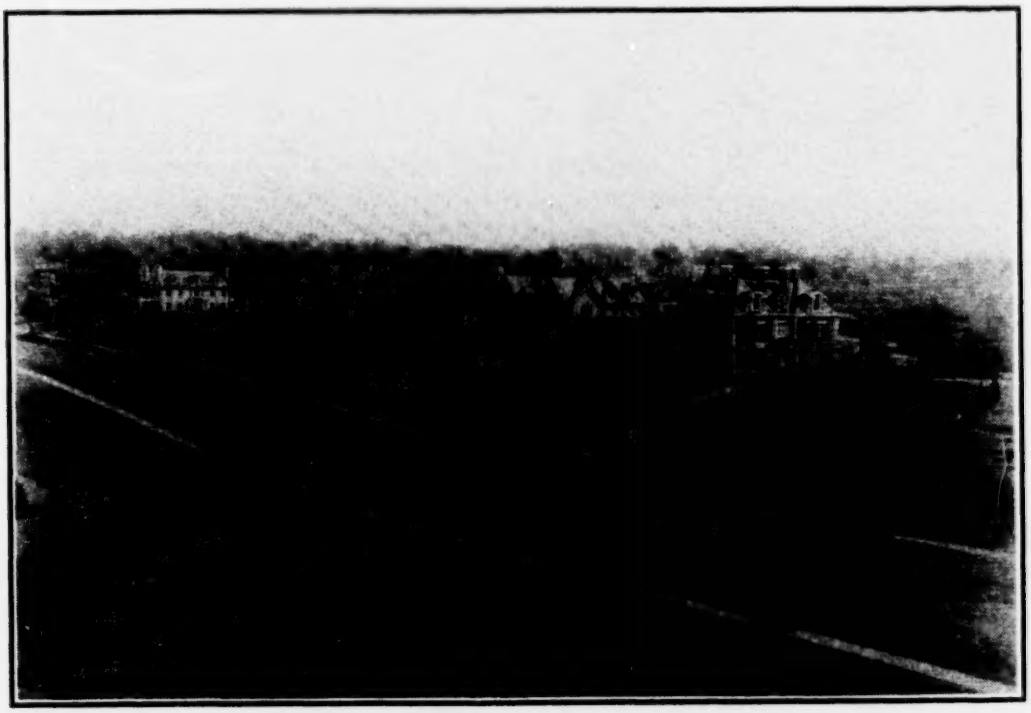

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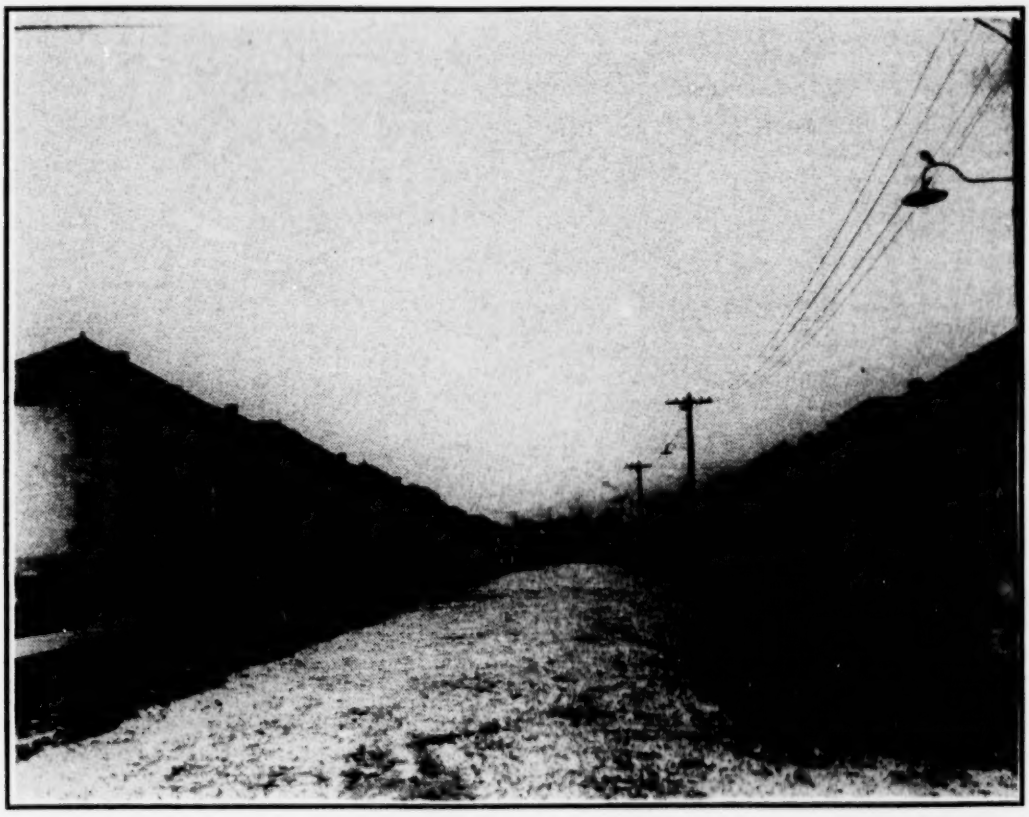





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